SUBJECT: Scheduling of Slaughters	07-A-01
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 40 and 41	**Initial Release** Sept 1, 2009 **Page 1 of 3**

RATIONALE

The slaughter of food animals in a "Licensed Meat Facility" (abattoir) must meet all of the requirements in AR 42/*2003 Meat Inspection Regulation*.

AR 42/2003 has two main purposes:

1. Ensuring that animals are handled in a humane manner throughout the entire process.
2. Ensuring the production of safe meat products.

Scheduling more animals than can be handled efficiently may:

1. Affect the accuracy of inspection.
2. Increase food safety hazards such as poor handling procedures, inadequate cooling rates, poor temperature control, and improper sanitation.

This document deals primarily with the responsibility of the abattoir operator under sections 40 & 41 of AR 42/2003.

Note: Section 40 specifies that a Meat Inspection Branch (MIB) Inspector must be present for any slaughter that is conducted at the abattoir. It also requires the abattoir operator to provide assistance to the inspector as required and requires that slaughtering and dressing operations are conducted with reasonable speed.

Section 41 outlines the days and hours that inspection may be provided and squarely places the onus on the operator of the abattoir to ensure the presence of a MIB Inspector. There are also provisions for exceptions to the days that inspection services are normally available.

The **intent** of this document is to **outline <u>how</u> slaughters are** to be **scheduled**.

OBJECTIVE/OUTCOME

An MIB Inspector will be present during the slaughter and dressing of each food animal.

The abattoir operator will assume responsibility for contacting the Regional Supervisor (RS) of the MIB to schedule inspection services prior to setting slaughter dates.

Note: The responsibility for the scheduling of inspection services has been delegated to the RS.

There will be adequate space, equipment, and personnel to handle all animals humanely and to carry out slaughtering, dressing and evisceration procedures in a timely and sanitary manner.

Note: Before consideration will be given to providing more hours, or days, of inspection service the abattoir operator will be required to demonstrate that they are making full and efficient use of their current allotment of time.

Depending on the situation the RS will handle scheduling requests in one, or more of the following ways.

Regularly Scheduled Inspection Services

The initial schedule for regular inspection services on a weekly, monthly, or annual basis is established through a consultation process between the RS and the abattoir operator.

Note: There may be a need for a trial period before a permanent schedule is finalized.

Any change to a permanent schedule requires a verbal, or written, request from the abattoir operator.

Note: The RS, or a designate, will determine whether the changes are justified and whether there is sufficient manpower to cover the change in service.

All changes to a regular schedule, including starting times, will be confirmed with the operator either verbally, or in writing.

Requests for Overtime

Overtime requests will only be granted if:

1. The abattoir operator can demonstrate effective utilization of scheduled time that has already been allocated, or
2. The request is due to circumstances beyond their control and
3. The regularly scheduled MIB Inspector agrees to the overtime, or
4. Arrangements can be made of another inspector to come in and
5. Sufficient cooler space is available to allow the extra carcasses to be chilled in accordance with the MFS.

Note: The RS reserves the right to refuse overtime to abattoirs that bring in more animals than the number that can be reasonably slaughtered and processed in 7.25 hours.

Irregularly Scheduled Inspection Services

Note: Irregular scheduling of inspection services primarily applies to Hutterite colonies.

Irregular scheduling will only be done on an ad hoc basis. It will be on a first come first served basis depending on manpower availability.

Written confirmation will be provided for irregularly scheduled slaughter dates.

Note: Any changes to these, once established, will be done in accordance with policies established for regularly scheduled inspection.

Unforeseen, or Uncontrollable, Circumstances

Whenever possible the RS will try to accommodate, by rescheduling alternate days, for time lost due to uncontrollable situations.

Note: Uncontrollable circumstances include such things as power outages, poor water samples, bereavement, mechanical failures, adverse weather, etc.

There is no responsibility to adjust schedules for time lost through the fault of the abattoir operator or any abattoir personnel (e.g. failure to pass a pre-op inspection).

RELATED SECTIONS OF TIPM

05-B-04 Timely Slaughter

SUBJECT: Blood Collection	07-A-02
REGULATORY REFERENCE M-9 RSA 200 *Meat Inspection Act* (Current to 4/29/2009) Section 6	**Initial Release** Sept 1, 2009 **Page 1 of 2**

RATIONALE

Blood is considered to be a by-product that can be used for human consumption providing it is collected and processed in a hygienic and safe manner.

Note: There are four fundamental principles that must be observed while harvesting any by-products, from slaughtered animals, including blood:

a) The identity of the by-products must be maintained until the corresponding carcass is inspected and approved.

b) Rapid, hygienic handling and chilling of the by-product is required to prevent contamination and decomposition.

c) If a particular type of by-product, from more than one animal, is placed in a single container and one of the carcasses is condemned, all by-products harvested in that particular container will also be condemned.

d) All by-products must be prepared, packaged and stored in an acceptable sanitary manner.

OBJECTIVE/OUTCOME

The following conditions will apply to the collection of blood, for human consumption, from read meat animals in a “Licensed Meat Facility” (abattoir):

1. Blood will only be taken from clean, dry animals.
2. Collection will be done in a manner that ensures the blood does not become contaminated from hair, or body fluids.

   Note: It is “Common Industry Practice” to harvest blood with a hollow knife, which must be cleaned and sanitized between animals.

3. Blood from condemned carcasses will also be condemned and discarded in a proper manner.

   Note: In order to comply with the requirements of section 6 of the *Meat Inspection Act* the Meat Inspection Branch (MIB) Inspector must be able to match blood to the carcass, or carcasses, that it came from until such time as the post-mortem inspection has been completed.

   The best method of doing this is to collect the blood into individually labeled containers that identify the carcass the blood came from.

   The placement of blood from more than one animal in the same container is allowed but, if any of the carcasses fail to pass inspection all of the blood in that container will be condemned.

4. Only approved anticoagulants will be used.

   Note: Anti-coagulants are chemical agents that will stop blood from clotting.

   Mechanical defibrination (removal of fibrin from the blood) is an alternative to the use of anti-coagulants.

   Suitable metal, or plastic, beaters must be used for mechanical defibrination. Removal of fibrin by hand is not allowed. The beaters must be sanitized after each use.

5. SRM cross contamination prevention procedures must be in place if blood is going to be salvaged from cattle that are OTM (over thirty months).

   Note: Cross contamination prevention procedures must be approved by the Area Manager.

6. Blood not intended for human consumption will be removed from the processing area immediately and placed in the inedible area, or room.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Blood Collection"**, for human consumption, will be met when:

1. **Written,** abattoir specific, **procedures** for the **collection of blood** are on file.
2. On site observations demonstrate that the blood collection procedures are being followed.

RELATED SECTIONS OF TIPM

07-B-08 Meat By-Product Harvesting - Beef
07-B-09 Meat By-Product Harvesting - Pork
07-B-11 Meat By-Product Harvesting - Miscellaneous Species
10-A-04 SRM Removal & Control Program

SUBJECT: Ritual Slaughter	07-A-03
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 8 & 21(1)	**Initial Release** Sept 1, 2009 **Page 1 of 2**

RATIONALE

Various religious groups, primarily Jewish and Islamic, have specific requirements for the way animals are slaughtered.

In recognition of the constitutional right to freedom of religion AR 42/2003 allows the conduct of ritual, or religious, slaughter providing certain conditions have been met.

Note: These conditions are intended to ensure that all animals are handled and slaughtered with a minimum of pain and distress including those subjected to ritual, or religious, slaughter.

In addition to ensuring humane handling of animals, during the slaughter process it is also important, for meat quality and safety reasons that any ritual, or religious slaughter, results in rapid unconsciousness and optimum bleeding.

The **intent** of this document is to **outline** the **conditions** for ritual, or religious, slaughter in a "Licensed Meat Facility" (abattoir).

OBJECTIVE/OUTCOME

Religious, or ritual, slaughter will be done in accordance with the conditions approved by the Director of the Regulatory Services Division (RSD) of Alberta Agriculture and Rural Development (ARD).

Note: The approval of the Director is authorized under Section 8 of AR 42/2003.

Approval to conduct ritual, or religious, slaughters does not absolve the abattoir operators from responsibility for humane stunning and slaughter of food animals in accordance with section 21(1) of AR 42/2003 and other pieces of Canadian and Provincial legislation including the Animal Protection Act (Alberta) and Health of Animals Act (Canada).

Prior to granting approval the Director will require assurance from the Area Manager, for the area where the abattoir is located, to provide assurance that the physical facilities and the skill of the individual(s) performing the slaughter are such that all animals will be rendered unconscious in a timely fashion and to the satisfaction of the resident MIB Inspector.

In summary the conditions for ritual, or religious, slaughter include:

a) a requirement that only experienced individuals perform the slaughter;

b) receipt, by the operator of the abattoir, written permission to conduct this particular type of slaughter;

c) restraining animals by a method prescribed and approved by the Meat Inspection Branch (MIB) of the RSD

Ritual slaughter methods involving cutting of the throat, without stunning, will be accomplished with a single cut that results in rapid, simultaneous and complete severance of the jugular vein and carotid arteries so as to cause rapid unconsciousness of the animal.

Note: Regardless of the type of ritual, or religious, slaughter being conducted MIB Inspectors have the authority to require the use of alternative slaughter methods if, in their opinion, animals are being subjected to undue suffering.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Ritual Slaughter"** will be met when:

1. The abattoir's specific, written **"Dressing Procedures" include** specific **procedures for ritual, or religious, slaughter**.
2. **"Training records"** are available that confirm that the person performing the slaughter is proficient.
3. On site observations, by a MIB Inspector, demonstrate that the ritual, or religious, slaughters are being conducted in a humane and sanitary manner.

RELATED SECTIONS OF TIPM

05-B-06 Stunning & Bleeding Practices

SUBJECT: Dressing Procedures - Cattle & Calves	07-B-01
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 15.1 & 58.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Page 1 of 7**

RATIONALE

A significant challenge for the production of safe food from animal sources is preventing contamination of edible products with the micro-organisms (bacteria, molds, fungi, etc.) that are on the surface of the skin and in the intestinal tract of live animals.

Note: Studies have indicated that there is a very large population of micro-organisms on the surface of beef hides therefore sanitary skinning is one of the most important steps in the dressing of a beef carcass.

The implementation of proper sanitary dressing procedures is one of the most important methods of minimizing the contamination of edible meat products.

Note: Dressing refers to all of the actions taken from the time the animal has been stunned until the carcass and all other edible products are removed from the kill floor for further storage and/or processing.

Proper conduct of each phase of dressing requires skill on the part of plant personnel.

Note: All personnel involved in the dressing process must be adequately trained and/or supervised.

The surfaces of the carcass and edible organs must not be allowed to come into contact with the surface of the skin, intestinal contents or dirty equipment.

Note: This is particularly important during the skinning and evisceration processes.

Any contaminated areas of the carcass must be trimmed out.

Note: Washing is not sufficient for the removal of visible contamination.

The intent of this document is to **outline** the **procedures for** the **proper dressing** of **beef and veal carcasses**.

OBJECTIVE/OUTCOME

Written **"Dressing Procedures"** will be on file.

All carcasses will be dressed in a manner that:

1. Reduces the risk of contamination of the carcass and its parts or other meat products.
2. Ensures that that all parts of the carcass retain their identity throughout the dressing procedure.

Note: Until such time as the inspection process has been completed the Meat Inspection Branch (MIB) Inspector must be able to match all organs and other parts with the carcass they came from at all stages of the dressing procedure. This is necessary in order to ensure an accurate post-mortem inspection is conducted and to ensure that all parts are properly disposed of in the event of a condemnation.

3. Results in the production of an unadulterated meat product.

The abattoir operator will assume responsibility for monitoring the performance of personnel to ensure that proper dressing procedures are conducted.

Note: The MIB Inspector is also responsible for monitoring dressing procedures and ensuring that the abattoir operator takes appropriate steps to correct any deficiencies.

The various steps, in the dressing procedure, will be conducted, as described in this document.

Note: Normal dressing procedures for cattle, other than veal calves, consist of:

a) bleeding;
b) removal of the head;
c) preparation of the head for inspection;
d) harvesting edible product from the head;
e) removal of the feet & hide;
f) removal of the udder or pizzle (penis);
g) opening of the brisket;
h) rodding or tying of the wesand (esophagus);
i) dropping the bung (anus and rectum);
j) evisceration (removal of internal organs);
k) splitting the carcass;
l) trimming;
m) washing

The following dressing procedures are considered to be “Common Industry Practice”.

Note: The reader is also referred to **TIPM document 10-A-04** “SRM Removal & Control Program” **for additional requirements** respecting the removal of Specified Risk Materials (SRMs) during the **dressing** of **cattle** aged **30 months and older**.

Bleeding

Bleeding must occur immediately following stunning.

Note: All animals must be rendered unconscious, prior to bleeding, by an approved method.

Removal of the Head

Once the head has been skinned it should be removed from the carcass immediately.

Note: Care must be taken to avoid contaminating exposed tissues.

Employees who remove heads must wash their hands, and adequately rinse and sanitize their knives after each animal.

Note: Using a “two knife” system allows one knife to be used for cutting the hide while

the second knife remains clean for sticking and blood collection.

Preparation of the Head for Inspection

The head must be skinned in a manner that prevents the outer surface of the skin flaps from contacting the underlying tissues.

Note: Facilities must be provided for the removal of any remaining pieces of skin which must be done before the head is washed.

The entire head, including the oral (mouth) and nasal (nose) cavities must be thoroughly washed before any incisions can be made in the muscles.

The tongue must be dropped and the palatine tonsils must be removed before the head is presented for inspection.

Note: This is done in order to expose the retropharyngeal lymph nodes.

Further rinsing of the mouth cavity, if required [e.g. to remove any remaining ingesta (food or stomach contents)], must be performed without splashing other heads.

Head hooks must be rinsed and sanitized, after every use, with water at 82^0 C.

Harvesting Edible Products from the Head

After the post-mortem (PM) inspection has been completed and the corresponding carcass has been approved the tongue and head meat can be salvaged.

Note: All harvested material must be washed so that it is free of blood and chilled as quickly as possible.

When the head is transferred to the head boning station it must not be allowed to become contaminated from contact with other heads.

Note: Boning of the heads must not be done on the same surface unless that surface is cleaned and sanitized between each head. It is “Common Industry Practice” to bone the head done on the hook, or rack, to ensure that liquids from the nose and throat, brain, or spinal cord tissue don’t contaminate any edible portions.

The salivary glands must be trimmed away from any cheek meat that is salvaged.

Note: All cheek meat must be washed and chilled immediately after salvage.

Removal of the Feet and Hide

During removal of the feet and hide, the skin must be cut from inside out to prevent contact between the surface of the hide (hair, dirt and manure) and the underlying surface of the carcass.

Note: Cutting from the inside out only applies after the starting cuts have been made.

Feet harvested for edible purposes must remain identified with the carcass.

They won’t be approved for human consumption until the carcass has been approved.

The hair (outer) side of the hide must be rolled, or reflected away, from the carcass during the skinning process.

Knives and other equipment used for the removal of the feet and hides must be cleaned and sanitized on an ongoing basis.

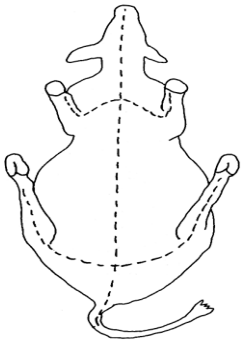
Note: A separate knife may be used make the starting cuts in order to eliminate the need for frequent rinsing and sanitizing during the skinning process.

Unless skinning is performed on the rail the carcass is placed on a skinning bed following removal of the head.

Note: Care must be taken to avoid contamination of neck tissue as the carcass is being placed on the bed. Exposed neck tissue must not contact the floor, cradle, or outside skin, surfaces.

Any fecal (manure) contamination from the anus should be washed off at this point before the hide is opened to reduce the potential of spreading of bacteria onto the carcass through aerosols.

The following picture illustrates the cut lines for hide removal using the cradle/bed system



Note: When done on the rail skinning should begin at the hind shanks and proceed downward, reflecting the hide away from the carcass.

Following hide removal, carcasses must be kept separated from each other to avoid contact.

Note: This separation must be maintained until each carcass has passed inspection.

Removal of the Udder, or Pizzle (penis)

In cows and heifers lactating (milking) udders must be removed in a manner that prevents contamination of the carcass, facilities, or equipment, from any liquid in the udder.

Note: Any areas of contamination, on the carcass must be removed by trimming.

In bulls and steers the penis and prepuce (external opening for the penis) must also be removed in a manner that prevents contamination of the carcass.

Opening the Brisket

Clean saws must be used to split the brisket.

Note: The saw must be adequately rinsed and sanitized after each animal.

The brisket can be opened before, or after, complete hide removal.

Note: If it is opened before hide removal has been completed the hide must be adequately reflected away from the midline to prevent contamination.

After the brisket is opened, care must be taken to avoid puncturing the viscera, which invariably results in carcass contamination.

Note: Water must never be allowed to enter the abdominal or thoracic cavities during the washing of an un- eviscerated carcass.

Rodding and/or Tying of the Wesand (esophagus)

It is "Common Industry Practice" to rod wesand when the abdominal viscera (organs) are going to be removed separately from the thoracic viscera.

Note: Rodding separates the esophagus from the trachea, lungs and surrounding tissue and permits it to be removed through the diaphragm and thoracic cavity without rupturing.

After rodding, the esophagus must be tied (e.g. with clean butcher string), or clipped.

Note: This is done to prevent contamination of the carcass with rumen (stomach contents) during evisceration.

The rod must be adequately rinsed and sanitized between carcasses.

If rodding is not performed the esophagus must be clipped or tied before the head is removed.

Dropping the Bung

During removal of the hide, a circular cut must be made around the anus (rectal opening), taking care to leave the anal sphincter (muscle) intact. The subsequent cut to free the anus and rectum from the surrounding tissue must be done with a clean knife.

Note: The process of cutting around the anus and freeing the rectum from the surrounding tissue is called "Dropping the Bung".

It is "Common Industry Practice" for the rectum to be tied along with the neck of the bladder and bagged (and tied) to prevent contamination. The bag can then be dropped into the pelvic cavity.

Evisceration (removal of internal organs)

Any visible contamination must be trimmed from the midline before opening the abdominal cavity in order to prevent contamination of the viscera.

Note: Skinning must be completed before evisceration is carried out.

Care must be taken during evisceration to prevent accidental puncture of the stomach or intestines.

Note: This is generally accomplished by opening the abdomen with the point of the knife pointing away from the carcass and the handle inside the abdomen. The hand holding the knife can be used to hold the abdominal organs back as the cut is being made.

Should a carcass or any of its edible organs be accidentally contaminated by stomach contents (ingesta), manure (fecal matter), pus, or any other foreign material, at any stage during the evisceration process the employee performing the procedure must immediately trim the contaminated area(s).

Unless already condemned all viscera must be placed in a clean tote, or viscera bin.

Note: If any viscera, or the carcass, is condemned the surface of the tote, truck, or bin, is considered to be contaminated as well and must be adequately rinsed and sanitized with water at a minimum temperature of 82^0 C before reuse.

The uro-genital organs (bladder, ovaries and uterus) should be removed entirely without incising them.

Note: Until such time as the inspection process has been completed the MIB Inspector must be able to match all of the viscera with the carcass it came from.

Pathological lesions (disease conditions) must not be removed (unless permitted by an inspector) until the post-mortem inspection has been completed.

Splitting the Carcass

The carcass can be split with a saw, or cleaver.

Note: Splitting saws, or cleavers, must be sanitized any time they are used on a condemned, or held, carcass, or when the instrument becomes contaminated by pus, or any other type of debris.

Any visible contamination must be trimmed from the back of the carcass before splitting.

Carcasses that hang within 15–30 cm (6”) of the floor must be quartered/trimmed or pinned to ensure that they do not contact the floor

To prevent cross-contamination, on the kill floor, exposed carcasses must not be allowed to come in contact with unclean equipment (high benches, retaining bars, etc.) or any other carcasses, prior to the final carcass inspection.

Note: Visible contamination must be removed by trimming. Washing is not considered to be as effective.

Trimming

Any defects or areas or contamination must be removed by trimming before the final carcass wash.

Note: Trimming must be done by abattoir personnel in a designated area.

The abattoir operator must implement a process control to make sure that trimming is complete and consistent.

Note: Proper trimming will leave the carcass free of stick wounds, residual pieces of hide bruises, pathological defects, contamination, blood clots or any other dressing defects.

Edible products may only be removed, from the kill floor, after final post-mortem inspection and approval.

Carcasses must be checked for cleanliness, by abattoir personnel, before washing.

Note: This check must be closely monitored by the MIB Inspector.

The spinal cord must be completely removed from split carcasses before the final carcass wash.

Note: The operator must implement a control program to make sure that removal is complete and consistent. In the case of carcasses that are split after chilling (i.e. veal carcasses), the spinal cord must be removed during boning/cutting operations. This is required to prevent the incorporation of spinal cord tissue into any meat products, ensuring compliance with established meat product standards.

Final Wash

All approved carcasses must receive a final wash, with clean potable water, to remove blood and/or bone dust.

Note: It is "Common Industry Practice" to use warm water (approximately 54^0 C).

MISCELLANEOUS CONSIDERATIONS FOR DRESSING CALVES (Veal)

Veal is defined as the meat of a bovine animal that has the following maturity characteristics and a warm dressed carcass weight of less than 180 kg (396 lbs):

1. bones that are soft and reddish in color;
2. ribs that are narrow and slightly rounded;
3. sternal (breast) bones that show distinct divisions;
4. aitch (pelvic bones) that are covered by cartilage.

Note: There must a scale on the killing floor to allow dressed veal carcasses to be weighed to ensure that their weight does not exceed the maximum weight standard for veal. The scale must be located so that the carcass can be weighed immediately after evisceration.

Based on current marketing practices in Canada, grain-fed veal dressed carcasses weighing 180 kg, or less, are derived from animals estimated to be between 6.5 – 7.0 months of age.

Note: Milk-fed veal are marketed even younger than grain-fed veal. These carcasses may also be marketed as beef.

Veal carcasses are dressed using the same dressing procedures as described for cattle, except that carcass splitting is not required.

Note: **The hide cannot be left on** a dressed veal carcass.

Dressed veal carcasses that could be mistaken for a dressed beef carcass must be properly identified with a stamp (using blue ink), or a hot brander, and segregated from beef carcasses in order to prevent labeling errors.

Note: There should be a written control program covering the boning, packaging, labeling and shipment of veal carcasses and their products. This control program must be approved by the Area Manager.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Dressing Procedures-Cattle & Calves"** will be met when:

1. Written **"Dressing Procedures"** are on file.
2. Personnel responsible for conducting the dressing procedures are properly trained.
3. On site observation demonstrates that the written **"Dressing Procedures"** are being implemented and that carcasses are being dressed in a hygienic manner.

RELATED SECTIONS OF TIPM

02-N-08 Carcass Washing & Dressing Equipment
03-G-01 Dressing Procedures - Red Meat Animals
07-B-08 Meat By-Product Harvesting - Beef
07-B-12 Intervention Strategies - Red Meat Animals
10-A-04 SRM Removal & Control Program

SUBJECT: Dressing Procedures - Hogs	07-B-02
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 15.1 & 58.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Page 1 of 5**

RATIONALE

A significant challenge for the production of safe food from animal sources is preventing contamination of edible products with the micro-organisms (bacteria, viruses, etc.) on the surface of the skin and in the intestinal tract of live animals.

The implementation of proper sanitary dressing procedures is one of the most important methods of minimizing the contamination of edible meat products.

Note: Dressing refers to all of the actions taken from the time the animal has been stunned until the carcass and all other edible products are removed from the kill floor for further storage and/or processing.

Proper conduct of each phase of dressing requires skill on the part of "Licensed Meat Facility" (abattoir) personnel.

Note: All personnel involved in the dressing process must be adequately trained and/or supervised.

The surfaces of the carcass and edible organs must not be allowed to come into contact with the surface of the skin, intestinal contents or dirty equipment.

Note: This is particularly important during the skinning and evisceration processes.

Any contaminated areas of the carcass must be trimmed out.

Note: Washing is not sufficient for the removal of visible contamination.

The intent of this document is to **outline** the **procedures for** the **proper dressing** of **hog carcasses**.

OBJECTIVE/OUTCOME

Written **"Dressing Procedures"** will be on file.

All carcasses will be dressed in a manner that:

1. Reduces the risk of contamination of the carcass and its parts or other meat products.
2. Ensures that all parts of the carcass retain their identity throughout the dressing procedure.

   Note: Until such time as the inspection process has been completed the Meat Inspection Branch (MIB) Inspector must be able to match all organs and other parts with the carcass they came from at all stages of the dressing procedure. This is necessary in order to ensure an accurate post-mortem inspection is conducted and to ensure that all parts are properly disposed of in the event of a condemnation.

3. Results in the production of an unadulterated meat product.

The abattoir operator will assume responsibility for monitoring the performance of personnel to ensure that proper dressing procedures are conducted.

Note: The MIB Inspector is also responsible for monitoring dressing procedures and ensuring that the abattoir operator takes appropriate steps to correct any deficiencies.

The various steps, in the dressing procedure, will be conducted, as described in this document.

Note: Normal dressing procedures for hogs consist of:

a) bleeding;
b) scalding;
c) hair removal;
d) head dropping, or removal;
e) evisceration (removal of internal organs);
f) splitting of the carcass;
g) trimming;
h) washing

The following dressing procedures are considered to be “Common Industry Practice”.

Bleeding

Bleeding must occur immediately following stunning.

Note: All hogs must be rendered unconscious, by an approved method, before they are bled.

The stick wound must be as small as possible and care must be taken to avoid shoulder sticking.

Scalding

There are two critical factors involved in proper scalding:

1. Water temperature.
2. Length of time in the scalding solution.

It is “Common Industry Practice” to immerse hogs, for 4 to 5 minutes in water that has been heated to 60^0 C (140^0 F).

Note: A proper scald will result in sufficient loosening of bristles, scurf, dirt and hoof shells (toe nails) to facilitate hair removal and cleaning of the skin.

Clean potable water must be used for scalding and an adequate amount of overflow of water is required.

Only approved scald water additives can be used.

Skinning

Skinning is an alternative to scalding.

Note: An approved method of washing the skin must be used before skinning.

The feet must be removed after carcass washing and before skinning.

Note: The hide must be completely removed prior to bunging or any other operations that involve opening of the body cavity.

Dehairing, Singeing and Polishing

In most plants the hair is removed mechanically.

Note: Hair removal equipment should be kept in good repair.

A tool called a "bell scraper" can be used to manually remove the hair but in most plants this tool is only used to remove hair missed by the machine.

Note: The outer hoof shells must be removed if they are still present. A hook on the upper part of the bell scraper can assist with removal of the hoof shell.

The feet must also be free of dirt, scurf and bristles.

Note: Special attention has to be given to the space between the toes (inter-digital clefts) whether the feet are being harvested as edible product or not.

A polisher may be used following removal of the hair.

Note: Polishers usually consist of a rotating shaft with hard rubber beaters, plastic brushes, or steel chains.

Washing

All carcasses should be washed with clean potable water prior to removal of the head and evisceration.

Note: This wash is done to ensure the complete removal of any loose dirt, bristles, or scurf, from the carcass. The carcass should not be washed again until after the final inspection.

Head Removal, or Dropping

Note: Dropping refers to partial removal of the head from the rest of the carcass.

Heads must be free of all bristle, dirt and scurf.

Note: If this can't be accomplished by scalding, de-hairing, singeing and shaving, then it is necessary to skin the head. This should be done after the initial carcass wash to minimize contamination of exposed head tissue.

The head can either be dropped, or removed, for inspection.

Note: This is done to expose the mandibular lymph nodes for inspection. When the head, tongue, or both, are removed, the MIB Inspector must be able to match them with the carcass that they came from until inspection is completed.

Whether the head is dropped or removed equipment used must be sanitized between each use.

Note: Even when it is obvious that a portion will be condemned, the MIB Inspector is still required to conduct a full routine inspection which in the case of the head includes incision of the lymph nodes and masseter muscles.

Evisceration (removal of internal organs)

The bung is dropped by cutting around the anus with a clean knife.

Note: Leakage, of manure, is not a large problem in pigs particularly if they have been off feed for 18 hours before slaughter. The bung can be tied to provide assurance that there will not be any leakage.

The brisket (chest) may be opened with a long sharp knife, saw, or cleaver.

Note: Regardless of what is used to open the chest all instruments must be sanitized after each use.

Care must be taken during evisceration to prevent accidental puncture of the stomach or intestines.

Note: This is generally accomplished by opening the abdomen with the point of the knife pointing away from the carcass and the handle is held from inside the abdomen. The fist can be used to hold the abdominal organs back as the cut is being made.

Should a carcass or any of its edible organs be accidentally contaminated by stomach contents (ingesta), manure (fecal matter), pus, or any other foreign material, at any stage during the evisceration process the employee performing the procedure must immediately trim the contaminated area(s).

Splitting the Carcass

The carcass can be split with a saw, or cleaver.

Note: Splitting saws, or cleavers, must be sanitized any time they are used on a condemned, or held, carcass, or when the instrument becomes contaminated, by pus, or any other type of debris.

Trimming

Any defects, or areas of contamination, must be removed by trimming before the final carcass wash.

Note: Trimming must be done by plant personnel in a designated area.

The abattoir operator must implement process control measures to make sure that trimming is complete and consistent.

Note: Proper trimming will leave the carcass free of stick wounds, bruises, pathological defects, contamination, blood clots or any other dressing defects.

Edible products may only be removed, from the kill floor, after final post-mortem inspection and approval.

Final Wash

All approved carcasses must receive a final wash, with clean potable water, before being placed in a cooler or hot boning room.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Dressing Procedures- Hogs"** will be met when:

1. Written **"Dressing Procedures"** are on file.
2. Personnel responsible for conducting the dressing procedures are properly trained.
3. On site observation demonstrates that the written **"Dressing Procedures"** are being implemented and that carcasses are being dressed in a hygienic manner.

RELATED SECTIONS OF TIPM

02-N-08 Carcass Washing & Dressing Equipment

03-G-01 Dressing Procedures - Red Meat

07-B-09 Meat By-Product Harvesting - Pork

07-B-12 Intervention Strategies - Red Meat Animals

SUBJECT: Dressing Procedures - Sheep, Goats & Deer	07-B-03
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 15.1 & 58.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Page 1 of 6**

RATIONALE

A significant challenge for the production of safe food from animal sources is preventing contamination of edible products with the micro-organisms (bacteria, viruses, etc.) that are on the surface of the skin and in the intestinal tract of live animals.

Note: Studies have indicated that there is a very large population of micro-organisms on the surface of beef hides therefore sanitary skinning is one of the most important steps in the dressing of sheep, goat and deer carcasses.

The implementation of proper sanitary dressing procedures is one of the most important methods of minimizing the contamination of edible meat products.

Note: Dressing refers to all of the actions taken from the time the animal has been stunned until the carcass and all other edible products are removed from the kill floor for further storage and/or processing.

Proper conduct of each phase of dressing requires skill on the part of plant personnel.

Note: All personnel involved in the dressing process must be adequately trained and/or supervised.

The surfaces of the carcass and edible organs must not be allowed to come into contact with the surface of the skin, intestinal contents or dirty equipment.

Note: This is particularly important during the skinning and evisceration processes.

Any contaminated areas of the carcass must be trimmed out.

Note: Washing is not sufficient for the removal of visible contamination.

The intent of this document is to **outline** the **procedures for** the **proper dressing** of **sheep, goat and deer carcasses**.

OBJECTIVE/OUTCOME

Written **"Dressing Procedures"** will be on file.

All carcasses will be dressed in a manner that:

1. Reduces the risk of contamination of the carcass and its parts or other meat products.
2. Ensures that that all parts of the carcass retain their identity throughout the dressing procedure.

Note: Until such time as the inspection process has been completed the Meat Inspection Branch (MIB) Inspector must be able to match all organs and other parts with the carcass they came from at all stages of the dressing procedure. This is necessary in order to ensure an accurate post-mortem inspection is conducted and to ensure that all parts are properly disposed of in the event of a condemnation.

3. Results in the production of an unadulterated meat product.

The abattoir operator will assume responsibility for monitoring the performance of personnel to ensure that proper dressing procedures are conducted.

Note: The MIB Inspector is also responsible for monitoring dressing procedures and ensuring that the abattoir operator takes appropriate steps to correct any deficiencies.

The various steps, in the dressing procedure, will be conducted, as described in this document.

Note: Unless the carcass is going to be partially dressed, normal dressing procedures for sheep, goat and deer carcasses consist of:

a) bleeding;
b) removal of the head;
c) preparation of the head for inspection;
d) harvesting edible product from the head;
e) removal of the feet & hide;
f) removal of the udder or pizzle (penis);
g) opening of the brisket;
h) dropping the bung (anus and rectum);
i) evisceration (removal of internal organs);
j) splitting the carcass;
k) trimming;
l) washing

The following dressing procedures are considered to be “Common Industry Practice”.

Bleeding

Bleeding must occur immediately following stunning.

Note: All animals must be rendered unconscious, by an approved method, before they are bled.

Removal of the Head

Once the head has been skinned it should be removed from the carcass immediately.

Note: Care must be taken to avoid contaminating exposed tissues.

Personnel that remove heads must wash their hands, and adequately rinse and sanitize their knives after each animal.

Note: Using a “two knife” system allows one knife to be used for cutting the hide while the second knife remains clean for sticking and blood collection.

Preparation of the Head for Inspection

The head must be skinned in a manner that prevents the outer surface of the skin flaps from contacting the underlying tissues.

Note: Facilities must be provided for the removal of any remaining pieces of skin, which must be done before the head is washed.

The entire head, including the oral (mouth) and nasal (nose) cavities must be thoroughly washed before any incisions can be made in the muscles.

The tongue must be dropped and the palatine tonsils must be removed before the head is presented for inspection.

Note: This is done in order to expose the retropharyngeal lymph nodes.

Further rinsing of the mouth cavity, if required e.g. to remove any remaining ingesta (food or stomach contents), must be performed without splashing other heads.

Head hooks must be rinsed and sanitized, after every use, with water at 82^0 C.

Removal of the Feet and Hide

During removal of the feet and hide, the skin must be cut from inside out to prevent contact between the surface of the hide (hair, dirt and manure) and the underlying surface of the carcass

Note: Cutting from the inside out only applies after the starting cuts have been made. Extensive hand to carcass contact is required while skinning sheep, goat and lamb carcasses thus care must be taken to prevent carcass contamination from dirty hands, knives, and the outer surface of the skin.

Knives and other equipment used for the removal of the feet and hides must be cleaned and sanitized on an ongoing basis.

Note: A separate knife may be used make the starting cuts in order to eliminate the need for frequent rinsing and sanitizing during the skinning process.

The hair (outer) side of the hide must be rolled, or reflected away, from the carcass during the skinning process.

The skin can be left on goat carcasses providing the abattoir is properly equipped to remove all of the hair in a sanitary manner.

Note: With the exception of partially dressed carcasses all of the hair must be removed from goats that are not skinned out and the skin surface must be washed before evisceration. The hair is removed by scalding, scraping (mechanical or manual) and singing. Scald tanks must meet the same requirements for those used for hogs and must be maintained in a similar manner (see TIPM document 07-B-02 Dressing Procedures – Hogs).

Following hide removal, carcasses must be kept separated from each other to avoid contact.

Note: This separation must be maintained until each carcass has passed inspection.

Removal of the Udder or Pizzle (penis)

In females lactating (milking) udders must be removed in a manner that prevents contamination of the carcass, facilities, or equipment, from any liquid in the udder.

Note: Any areas of contamination, on the carcass must be removed by trimming.

In males the penis and prepuce (external opening for the penis) must also be removed in a manner that prevents contamination of the carcass.

Opening the Brisket

Clean saws, or cleavers, must be used to split the brisket.

Note: The saw, or cleaver, must be adequately rinsed and sanitized after each use.

The brisket can be opened before, or after, complete hide removal.

Note: If it is opened before hide removal has been completed the hide over the midline must be adequately reflected to prevent contamination.

After the brisket is opened, care must be taken to avoid puncturing the viscera, which invariably results in carcass contamination.

Note: Water must never be allowed to enter the abdominal or thoracic cavities during the washing of an un- eviscerated carcass.

Dropping the Bung

During removal of the hide, a circular cut must be made around the anus (rectal opening), taking care to leave the anal sphincter (muscle) intact. The subsequent cut freeing the anus and rectum from the surrounding tissue must be done with a clean knife.

Note: The process of cutting around the anus and freeing the rectum from the surrounding tissue is called “Dropping the Bung”.

The rectum should be tied together along with the neck of the bladder and bagged (and tied) to prevent contamination. The bag can then be dropped into the pelvic cavity.

Evisceration (removal of internal organs)

Any visible contamination must be trimmed from the midline before opening the abdominal cavity in order to prevent contamination of the viscera.

Note: Skinning must be completed before evisceration is carried out.

Care must be taken during evisceration to prevent accidental puncture of the stomach, or intestines.

Note: This is generally accomplished by opening the abdomen with the point of the knife facing away from the carcass and the handle inside the abdomen. The hand holding the knife can be used to hold the abdominal organs back as the cut is being made.

Should a carcass or any of its edible organs be accidentally contaminated by stomach contents (ingesta), manure (fecal matter), pus, or any other foreign material, at any stage during the evisceration process abattoir personnel performing the procedure must immediately trim the contaminated area(s).

Unless already condemned all viscera must be placed in a clean tote, or viscera bin.

Note: If any viscera, or the carcass, is condemned the surface of the tote, truck, or bin, is considered to be contaminated as well and must be adequately rinsed and sanitized with water at a minimum temperature of 82^0 C before reuse.

The uro-genital organs (bladder, ovaries and uterus) should be removed entirely without incising them.

Note: Until such time as the inspection process has been completed the MIB Inspector must be able to match all of the viscera with the carcass it came from.

Pathological lesions (disease conditions) must not be removed (unless permitted by an inspector) until the post-mortem inspection has been completed.

Splitting the Carcass

Splitting of the carcass is optional.

Splitting can be done with a saw or cleaver.

Note: Splitting saws, or cleavers, must be sanitized any time they are used on a condemned, or held, carcass, or when the instrument becomes contaminated, by pus, or any other type of debris.

Any visible contamination must be trimmed from the back of the carcass before splitting.

To prevent cross-contamination, on the kill floor, exposed carcasses must not be allowed to come in contact with dirty equipment, or any other carcasses, prior to the final carcass inspection.

Note: Visible contamination must be removed by trimming. Washing is not considered to be as effective.

Trimming

Any defects or areas or contamination must be removed by trimming before the final carcass wash.

Note: Trimming must be done by abattoir personnel in a designated area.

The abattoir operator must implement a process control to make sure that trimming is complete and consistent.

Note: Proper trimming will leave the carcass free of stick wounds, residual pieces of hide bruises, pathological defects, contamination, blood clots or any other dressing defects.

Edible products may only be removed, from the kill floor, after final post-mortem inspection and approval.

Carcasses must be checked for cleanliness, by abattoir personnel, before washing.

Note: This check must be closely monitored by the MIB Inspector.

Final Wash

All approved carcasses must receive a final wash, with clean potable water, to remove blood and/or bone dust.

Note: It is “Common Industry Practice” to use warm water at approximately 54^0 C.

Partial Dressing (Lambs & Kid Goats)

Partial dressing, of lamb and kid carcasses, consists of not removing the skin, head, heart, liver, lungs, or kidneys.

Partial Dressing (Lambs & Kid Goats) (cont.)

Partial dressing is only allowed if:

1. The carcass weighs 25 kg, or less.
2. The skin is clean, dry and free of disease.
3. Dressing is done in a clean manner without, or only minimal, contamination.

   Note: Proper procedure requires the midline, of the skin over the belly, to be free of long hairs. This area may have to be shaved before the carcass is opened for evisceration.

4. The carcass is kept segregated from fully dressed carcasses.

   Note: This is done to prevent cross contamination of fully dressed carcasses. Unless there is a separate cooler for partially dressed carcasses a distance of 2 meters, from fully dressed carcasses, must be maintained.

5. Heart, liver, lungs and kidneys are sufficiently exposed for inspection.

   Note: These organs must be clean and free of disease and in the case of partially dressed carcasses where the sternum (breast bone) is not split the attached pluck must be hanging by the skirt to adequately expose it for inspection so that conditions such as pleuritis, adhesions and pneumonia, which are common in young animals, can be readily visualized.

Partial dressing procedures must permit a complete inspection of the carcass and all parts.

Note: If at any time during the inspection a MIB Inspector feels that the animal may have a disease condition that may not be visible on a partially dressed carcass, or if there is excessive contamination, the inspector will direct that the carcass be skinned and fully eviscerated.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Dressing Procedures-Sheep, Goats & Deer"** will be met when:

1. Written **"Dressing Procedures"** are on file.
2. Personnel responsible for conducting the dressing procedures are properly trained.
3. On site observation demonstrates that the written **"Dressing Procedures"** are being implemented and that carcasses are being dressed in a hygienic manner.

RELATED SECTIONS OF TIPM

02-N-08 Carcass Washing & Dressing Equipment

03-G-01 Dressing Procedures - Red Meat

07-B-11 Meat By-product Harvesting - Miscellaneous Species

07-B-12 Intervention Strategies - Red Meat Animals

SUBJECT: Dressing Procedures - Elk & Bison	07-B-04
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 15.1 & 58.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Page 1 of 6**

RATIONALE

A significant challenge for the production of safe food from animal sources is preventing contamination of edible products with the micro-organisms (bacteria, viruses, etc.) that are on the surface of the skin and in the intestinal tract of live animals.

Note: Studies have indicated that there is a very large population of micro-organisms on the surface of beef hides therefore sanitary skinning is one of the most important steps in the dressing of a beef carcass.

The implementation of proper sanitary dressing procedures is one of the most important methods of minimizing the contamination of edible meat products.

Note: Dressing refers to all of the actions taken from the time the animal has been stunned until the carcass and all other edible products are removed from the kill floor for further storage and/or processing.

Proper conduct of each phase of dressing requires skill on the part of plant personnel.

Note: All personnel involved in the dressing process must be adequately trained and/or supervised.

The surfaces of the carcass and edible organs must not be allowed to come into contact with the surface of the skin, intestinal contents or dirty equipment.

Note: This is particularly important during the skinning and evisceration processes.

Any contaminated areas of the carcass must be trimmed out.

Note: Washing is not sufficient for the removal of visible contamination.

The intent of this document is to **outline** the **procedures for** the **proper dressing** of **elk and bison carcasses**.

OBJECTIVE/OUTCOME

Written **"Dressing Procedures"** will be on file.
All carcasses will be dressed in a manner that:

a) Reduces the risk of contamination of the carcass and its parts or other meat products.

b) Ensures that all parts of the carcass retain their identity throughout the dressing procedure.

Note: Until such time as the inspection process has been completed the Meat Inspection Branch (MIB) Inspector must be able to match all organs and other parts with the carcass they came from at all stages of the dressing procedure. This is necessary in order to ensure an accurate post-mortem inspection is conducted and to ensure that all parts are properly disposed of in the event of a condemnation.

c) Results in the production of an unadulterated meat product.

The abattoir operator will assume responsibility for monitoring the performance of personnel to ensure that proper dressing procedures are conducted.

Note: The MIB Inspector is also responsible for monitoring dressing procedures and ensuring that the abattoir operator takes appropriate steps to correct any deficiencies.

The various steps, in the dressing procedure, will be conducted, as described in this document.

Note: Normal dressing procedures for elk and bison consist of:

a) bleeding;
b) removal of the head;
c) preparation of the head for inspection;
d) harvesting edible product from the head;
e) removal of the feet & hide;
f) removal of the udder or pizzle (penis);
g) opening of the brisket;
h) rodding or tying of the wesand (esophagus);
i) dropping the bung (anus and rectum);
j) evisceration (removal of internal organs);
k) splitting the carcass;
l) trimming;
m) washing.

The following dressing procedures are considered to be “Common Industry Practice”.

Bleeding

Bleeding must occur immediately following stunning.

Note: All animals must be rendered unconscious, by an approved method, before they are bled.

Removal of the Head

Once the head has been skinned it should be removed from the carcass immediately.

Note: Care must be taken to avoid contaminating exposed tissues.

Personnel who remove heads must wash their hands, and adequately rinse and sanitize their knives after each animal.

Note: Using a “two knife” system allows one knife to be used for cutting the hide while the second knife remains clean for sticking and blood collection.

Preparation of the Head for Inspection

The head must be skinned in a manner that prevents the outer surface, of the skin flaps, from contacting the underlying tissues.

Note: Facilities must be provided for the removal of any remaining pieces of skin which must be done before the head is washed.

The entire head, including the oral (mouth) and nasal (nose) cavities must be thoroughly washed before any incisions can be made in the muscles.

The tongue must be dropped and the palatine tonsils must be removed before the head is presented for inspection.

Note: This is done in order to expose the retropharyngeal lymph nodes.

Further rinsing of the mouth cavity if required [e.g. to remove any remaining ingesta (food or stomach contents)], must be performed without splashing other heads.

Head hooks must be rinsed and sanitized, after every use, with water at 82^0 C.

Harvesting Edible Products from the Head

After inspection has been complete and the corresponding carcass has been approved the tongue and head meat can be salvaged.

Note: All harvested material must be washed so that it is free of blood and chilled as quickly as possible.

When the head is transferred to the head boning station it must not be allowed to become contaminated from contact with other heads.

Note: Boning of the heads must not be done on the same surface unless that surface is cleaned and sanitized between each head. It is “Common Industry Practice” for boning of the head to be done on the hook, or rack, to ensure that liquids from the nose and throat, brain, or spinal cord tissue does not contaminate any edible portions.

The salivary glands must be trimmed away from any cheek meat that is salvaged.

Note: All cheek meat must be washed and chilled immediately after salvage.

Removal of the Feet and Hide

During removal of the feet and hide, the skin must be cut from the inside to the outside to prevent contact between the surface of the hide (hair, dirt and manure) and the underlying surface of the carcass

Note: Cutting from the inside out only applies after the starting cuts have been made.

The hair (outer) side of the hide must be rolled, or reflected away, from the carcass during the skinning process.

Knives and other equipment used for the removal of the feet and hides must be cleaned and sanitized on an ongoing basis.

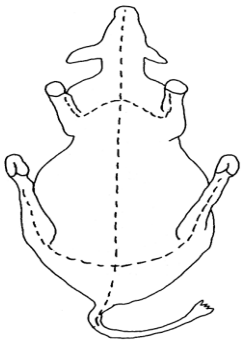
Note: A separate knife may be used to make the starting cuts in order to eliminate the need for frequent rinsing and sanitizing during the skinning process.

Unless skinning is performed on the rail the carcass is placed on a skinning bed following removal of the head.

Note: Care must be taken to avoid contamination of neck tissue as the carcass is being placed on the bed. Exposed neck tissue must not contact the floor, cradle or outside skin surfaces.

Any fecal (manure) contamination from the anus should be washed off at this point before the hide is opened to reduce the potential of spreading of bacteria onto the carcass through aerosols.

The following picture illustrates the cut lines for hide removal using the cradle/bed system.



Note: When done on the rail skinning should begin at the hind shanks and proceed downward, reflecting the hide away from the carcass.

Following hide removal, carcasses must be kept separated from each other to avoid contact.

Note: This separation must be maintained until each carcass has passed inspection.

Removal of the Udder or Pizzle (penis)

In females lactating (milking) udders must be removed in a manner that prevents contamination of the carcass, facilities or equipment from any liquid in the udder.

Note: Any areas of contamination, on the carcass must be removed by trimming.

In males the penis and prepuce (external opening for the penis) must also be removed in a manner that prevents contamination of the carcass.

Opening the Brisket

Clean saws must be used to split the brisket.

Note: The saw must be adequately rinsed and sanitized after each animal.

The brisket can be opened before, or after, complete hide removal.

Note: If it is opened before hide removal has been completed the hide over the midline must be adequately reflected to prevent contamination.

After the brisket is opened, care must be taken to avoid puncturing the viscera, which invariably results in carcass contamination.

Note: Water must never be allowed to enter the abdominal or thoracic cavities during the washing of an un- eviscerated carcass.

Rodding and/or Tying of the Wesand (esophagus)

It is "Common Industry Practice" to rod the wesand if the abdominal viscera (organs) are going to be removed separately from the thoracic viscera.

Note: Rodding separates the esophagus from the trachea, lungs and surrounding tissue and permits it to be removed through the diaphragm and thoracic cavity without rupturing.

After rodding, the esophagus must be tied (e.g. with clean butcher string), or clipped.

Note: This is done to prevent contamination of the carcass with rumen (stomach contents) during evisceration.

The rod must be adequately rinsed and sanitized between carcasses.

If rodding is not performed the esophagus must be clipped or tied before the head is removed.

Dropping the Bung

During removal of the hide, a circular cut must be made around the anus (rectal opening), taking care to leave the anal sphincter (muscle) intact. The subsequent cut freeing the anus and rectum from the surrounding tissue must be done with a clean knife.

Note: The process of cutting around the anus and freeing the rectum from the surrounding tissue is called "Dropping the Bung".

It is "Common Industry Practice" for the rectum to be tied along with the neck of the bladder and bagged (and tied) to prevent contamination. The bag can then be dropped into the pelvic cavity.

Evisceration (removal of internal organs)

Any visible contamination must be trimmed from the midline before opening the abdominal cavity in order to prevent contamination of the viscera.

Note: Skinning must be completed before evisceration is carried out.

Care must be taken during evisceration to prevent accidental puncture of the stomach or intestines.

Note: This is generally accomplished by opening the abdomen with the point of the knife facing away from the carcass and the handle inside the abdomen. The hand holding the knife can be used to hold the abdominal organs back as the cut is being made.

Should a carcass, or any of its edible organs, be accidentally contaminated by stomach contents (ingesta), manure (fecal matter), pus, or any other foreign material, at any stage during the evisceration process, personnel performing the procedure must immediately trim the contaminated area(s).

Unless already condemned all viscera must be placed in a clean tote, or viscera bin.

Note: If any viscera, or the carcass, is condemned the surface of the tote, truck, or bin, is considered to be contaminated as well and must be adequately rinsed and sanitized with water at a minimum temperature of 82^0 C before reuse.

The uro-genital organs (bladder, ovaries and uterus) should be removed entirely without incising them.

Note: Until such time as the inspection process has been completed the MIB Inspector must be able to match all of the viscera with the carcass it came from.

Pathological lesions (disease conditions) must not be removed (unless permitted by an inspector) until the post-mortem inspection has been completed.

Splitting the Carcass

The carcass can be split with a saw or cleaver.

Note: Splitting saws, or cleavers, must be sanitized any time they are used on a condemned, or held, carcass, or when the instrument becomes contaminated by pus, or any other type of debris.

Any visible contamination must be trimmed from the back of the carcass before splitting.

Carcasses that hang within 15–30 cm (6”) of the floor must be quartered, trimmed, or pinned, to ensure that they do not contact the floor.

To prevent cross-contamination, on the kill floor, exposed carcasses must not be allowed to come in contact with unclean equipment (high benches, retaining bars, etc.) or any other carcasses, prior to the final carcass inspection.

Note: Visible contamination must be removed by trimming. Washing is not considered to be as effective.

Trimming

Any defects or areas or contamination must be removed by trimming before the final carcass wash.

Note: Trimming must be done by plant personnel in a designated area.

The abattoir operator must implement process control measures to make sure that trimming is complete and consistent.

Note: Proper trimming will leave the carcass free of stick wounds, residual pieces of hide, bruises, pathological defects, contamination, blood clots or any other dressing defect.

Edible products may only be removed, from the kill floor, after final post-mortem inspection and approval.

Carcasses must be checked for cleanliness, by abattoir personnel, before washing.

Note: This check must be closely monitored by the MIB Inspector.

Final Wash

All approved carcasses must receive a final wash, with clean potable water to remove blood and/or bone dust.

Note: It is “Common Industry Practice” to use warm water at approximately 54^0 C.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Dressing Procedures- Elk & Bison"** will be met when:

1. Written **"Dressing Procedures"** are on file.
2. Personnel responsible for conducting the dressing procedures are properly trained.
3. On site observation demonstrates that the written **"Dressing Procedures"** are being implemented and that carcasses are being dressed in a hygienic manner.

RELATED SECTIONS OF TIPM

02-N-08 Carcass Washing & Dressing Equipment

03-G-01 Dressing Procedures - Red Meat

07-B-11 Meat By-product Harvesting - Miscellaneous Species

07-B-12 Intervention Strategies - Red Meat Animals

SUBJECT: Dressing Procedures - Rabbits (Domestic)	07-B-05
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 15.1 & 58.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Page 1 of 4**

RATIONALE

A significant challenge for the production of safe food from rabbits is the prevention of contamination of edible products with the micro-organisms (bacteria, viruses, etc.) on the surface of the skin and in the intestinal tract.

The implementation of proper sanitary dressing procedures is one of the most important methods of minimizing the contamination of edible meat products.

Note: Dressing refers to all of the actions taken from the time the animal has been stunned until the carcass and all other edible products are removed from the kill floor for further storage and/or processing.

Proper conduct of each phase of dressing requires skill on the part of plant personnel.

Note: All personnel involved in the dressing process must be adequately trained and/or supervised.

The surfaces of the carcass and edible organs must not be allowed to come into contact with the surface of the skin, intestinal contents or dirty equipment.

Note: This is particularly important during the skinning and evisceration processes.

Any contaminated areas of the carcass must be trimmed out.

Note: Washing is not sufficient for the removal of visible contamination.

The intent of this document is to **outline** the **procedures for** the **proper dressing** of **domestic rabbit carcasses**.

OBJECTIVE/OUTCOME

Written **"Dressing Procedures"** will be on file.

All carcasses will be dressed in a manner that:

a) Reduces the risk of contamination of the carcass and its parts or other meat products.

b) Ensures that all parts of the carcass retain their identity throughout the dressing procedure.

Note: Until such time as the inspection process has been completed the Meat Inspection Branch (MIB) Inspector must be able to match all organs and other parts with the carcass they came from at all stages of the dressing procedure. This is necessary in order to ensure an accurate post-mortem inspection is conducted and to ensure that all parts are properly disposed of in the event of a condemnation.

c) Results in the production of an unadulterated meat product.

The abattoir operator will assume responsibility for monitoring the performance of personnel to ensure that proper dressing procedures are conducted.

Note: The MIB Inspector is also responsible for monitoring dressing procedures and ensuring that the abattoir operator takes appropriate steps to correct any deficiencies.

The various steps, in the dressing procedure, will be conducted, as described in this document.

Note: Normal dressing procedures for rabbits consist of:

a) stunning;
b) bleeding;
c) skinning;
d) evisceration (removal of internal organs);
e) final wash

Stunning

In theory any of the methods approved under section 58(2) of the AR 42/2003 can be used to stun rabbits.

Note: Section 58(2) allows animals to be stunned by:

a) a blow to the head by means of a mechanical penetrating device;
b) exposing the animal to concentrated carbon dioxide;
c) electrocution;
d) shooting;
e) other methods approved by the Director for the purpose of developing or testing a new procedure

In most facilities rabbits are rendered unconscious by a blow to the head, or neck, or by electrocution however, “Common Industry Practice” indicates that electrical stunning is the most effective method.

Note: With electrical stunning care must be taken to ensure the proper amperage is used.

Insufficient power will fail to render the animal unconscious while excessive power could cause dislocation of limbs and internal hemorrhage in the muscles.

For optimum results it is recommended that rabbits, depending on their size, be subjected to 0.5 to 0.75 Amps.

Bleeding

To ensure that the animal doesn’t regain consciousness bleeding should commence immediately after stunning.

Bleeding can be accomplished by decapitation (head removal) with a single knife cut through the atlanto-occipital joint or by cutting the throat.

Note: A bleeding time of 90 seconds is considered sufficient to ensure complete exsanguination (removal of blood).

Skinning

Skinning must be done in a manner that prevents contamination of the carcass by contact with the outside of the skin.

Note: Facility personnel doing the skinning must have clean hands and knives.

The carcass should be closely examined, during and after skinning, for any contamination. Any remaining pieces of intact pelt, or hair, should be removed by trimming.

Skinning may be done by hanging the carcass with a hook or, in the case of smaller rabbits, by using a poultry shackle.

Most rabbits are skinned in the following manner:

1. Removal of the front feet.

   Note: Removal is accomplished by cutting through the carpal (knee) joint.

2. Removal of the tail and a portion of skin around the anus.
3. Making an incision, through the skin, down the inside of one hind leg from the hock to the pubic area then extending the incision up the inside of the other leg to the level of the hock.
4. Loosening the pelt from the hind limbs and cutting it around the hocks.
5. Removal of the hide, from the hips, body and front legs, with a steady pull.
6. Removal of the un-skinned lower portion of the back legs by cutting through the tarsal (hock) joints.

Evisceration

Evisceration should proceed as follows:

1. The skinned carcass is washed prior to opening.
2. An incision is made along the mid-line from the sternum (breast bone) to the pubis (bottom of the pelvis).

   Note: The pubis and sternum can be cut easily with a knife.

3. The external genitalia (penis, or vagina) and the bladder are freed from their attachments and pulled out.
4. The intestines and stomach are then freed from their attachments and removed by continuing traction.

   Note: Following their removal the abdominal organs are placed on the inspection table, or hung over the crotch of the carcass. The kidneys may be removed, or left in the carcass.

5. The diaphragm and sternum are cut and the pluck is removed.

   Note: The pluck, which is defined as the liver, heart and lungs, may remain loosely attached to the carcass and inspected at this point or it can be removed and placed on the inspection table.

Final Wash

Following completion of the evisceration process the carcass should be closely observed for any contamination then washed.

Note: Contaminants such as fur, stomach contents, manure, etc. should be removed by trimming before the final wash.

The MIB Inspector will conduct a final inspection and may opt to tag the carcass before the final wash.

The final wash can be accomplished by hand, or by passing the carcass through a wash cabinet.

Following washing and the final inspection the carcass proceeds through the chilling process.

Note: Rabbits may be chilled by submersion in cold water or by hanging in a drip cooler.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Dressing Procedures – Rabbits (Domestic)"** will be met when:

1. Written **"Dressing Procedures"** are on file.
2. Personnel responsible for conducting the dressing procedures are properly trained.
3. On site observation demonstrates that the written **"Dressing Procedures"** are being implemented and that carcasses are being dressed in a hygienic manner.

RELATED SECTIONS OF TIPM

02-N-08 Carcass Washing & Dressing Equipment
03-G-01 Dressing Procedures - Red Meat
07-B-11 Meat By-Product Harvesting - Miscellaneous Species
07-B-12 Intervention Strategies - Red Meat Animals

SUBJECT: Dressing Procedures - Poultry	07-B-06
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 15.1, 66(1) & 66(2) Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Page 1 of 6**

RATIONALE

A significant challenge for the production of safe food from animal sources is preventing contamination of edible products with the micro-organisms (bacteria, molds, fungi, etc.) that are on the surface of the skin and in the intestinal tract of birds.

The implementation of proper sanitary dressing procedures is one of the most important methods of minimizing the contamination of edible meat products with dander, feathers, intestinal contents, or other extraneous material.

Note: Dressing refers to all of the actions taken from the time the bird has been stunned until the carcass and all other edible products are removed from the kill floor for further storage and/or processing.

Proper conduct of each phase of dressing requires skill on the part of plant personnel.

Note: All personnel involved in the dressing process must be adequately trained and/or supervised.

The surfaces of the carcass and edible organs must not be allowed to come into contact with the surface of the skin, intestinal contents or dirty equipment.

Note: This is particularly important during the evisceration processes.

Any contaminated areas of the carcass must be trimmed out or discarded.

Note: Washing is not sufficient for the removal of any visible contamination.

The intent of this document is to **outline** the **procedures for** the **proper dressing** of **poultry carcasses**.

OBJECTIVE/OUTCOME

Written **"Dressing Procedures"** will be on file.

All carcasses will be dressed in a manner that:

a) Reduces the risk of contamination of the carcass and its parts or other meat products.

b) Ensures that all parts of the carcass retain their identity throughout the dressing procedure.

Note: Until such time as the inspection process has been completed the Meat Inspection Branch (MIB) Inspector must be able to match all organs and other parts with the carcass they came from at all stages of the dressing procedure. This is necessary in order to ensure an accurate post-mortem inspection is conducted and to ensure that all parts are properly disposed of in the event of a condemnation.

c) Results in the production of an unadulterated meat product.

The abattoir operator will assume responsibility for monitoring the performance of personnel to ensure that proper dressing procedures are conducted.

Note: The MIB Inspector is also responsible for monitoring dressing procedures and ensuring that the abattoir operator takes appropriate steps to correct any deficiencies.

The various steps, in the dressing procedure, will be conducted, as described in this document.

Note: Normal dressing procedures for poultry consist of:

a) bleeding;

b) scalding;

c) plucking and washing;

d) removal of Oil Glands, Heads and Feet;

e) opening of the vent;

f) evisceration (removal of internal organs);

g) trimming;

h) washing of the carcass.

The following dressing procedures are “Common Industry Practice”.

Bleeding

Bleeding must take place immediately following stunning.

Note: All birds must be rendered unconscious, prior to bleeding, by an approved method. It is “Common Industry Practice” to stun poultry by electrocution.

At least 90 seconds must elapse between the bleeding knife and entering the scalding tank.

Note: This is done to ensure that the bird is dead before entering the scalding tank.

Bleeding must be conducted in a sanitary manner.

Note: A sanitizer must be available, in close proximity to the bleeding area, so that the bleeding knife can be sanitized frequently in order to minimize contamination.

Scalding

There are two critical factors involved in proper scalding:

1. Water temperature.
2. Length of time in the scalding solution.

Note: Lower temperatures or insufficient time in the scalding water is ineffective in loosening the feathers while over-scalding may result in the loss of large areas of skin during the plucking process.

For **High Capacity On-Line Scalders** "Common Industry Practice" recommendations are:

a) for **chickens**

2.5 minutes at 58^{o}C (136^{0}F) (hard scald) or 3 minutes at 52^{0}C (126^{0}F (soft scald)

b) for **ducks**

60^{0}C (140^{0}F) followed by immersion in molten wax at approximately 87 C

For **Tumbling and Kettle (Batch) Scalders** "Common Industry Practice" recommendations are:

a) for **chickens**

60 seconds at a temperature of approximately 62^{0}C (143^{0}F)

b) for **ducks & geese**

60 seconds at approximately 68^{0}C (155^{0}F) followed by immersion in molten wax at approximately 87^{0}C

Plucking and Washing

Passing the birds through the plucking machine must result in the removal of all feathers, hair, dirt, scurf, etc.

Note: For optimal performance the recommended capacity of the plucking machine should not be exceeded.

Pickers, on the plucking machine, must be set and maintained so that they do not break the skin.

All plucked carcasses must be thoroughly washed, in potable water, before any incisions are made.

Note: To reduce the attachment of Salmonella and other bacteria to the skin, spray washing of carcasses should occur within fifteen seconds after plucking and carcass transfer.

Sprays at washing stations must be of sufficient volume and pressure, to completely remove any visible foreign material, (e. g. from bleeding, or removal of the head) that may have accumulated on the surface of the carcass including the hocks.

All tables, or other surfaces, used to hold poultry waiting to be re-hung on the line must be kept as clean as possible.

Note: There must not be any buildup of extraneous material (e. g. feathers or blood) and birds must not be allowed to accumulate while waiting to be re-hung.

Removal of the Uropygial (Oil) Gland, Head and Feet

Oil glands, heads and feet may be removed before or after evisceration.

Note: These structures are not removed when the birds are "Hong Kong Dressed".

The following conditions apply to "Hong Kong (head and feet-on) Dressed" poultry carcasses:

1. Heads and feet must not present a contamination hazard.
2. The oral (mouth) and nasal (nose) cavities must be free of extraneous material before chilling.
3. The epidermis and toenails are removed before chilling.
4. Feet must be free of fecal (manure) contamination before venting and/or opening of the abdominal cavity.
5. Processing and trimming defects are removed before chilling.
6. The carcass is labeled to indicate that the oil gland is still present.

Note: The oil gland must be removed if portions of "Hong Kong Dressed" carcasses are going to be incorporated into meat products such as mechanically deboned meat.

In poultry that are not "Hong Kong Dressed" the oil glands, heads and feet must be removed following scalding and plucking.

Note: Heads must not be allowed to accumulate and there must be no build up of debris on the head puller.

Hock cutting devices must be maintained so that there is no build up of contamination that will be transferred to the cut surfaces of the hock.

Note: Water sprays, of sufficient volume and pressure, must be directed at the cutting surface of the cutting device.

Feet that are left on the carcass, when it is presented for post-mortem inspection, must be free of any visible contamination (e.g. manure).

Automatic oil sac cutters must be set so that they effectively remove the oil sacs from the majority of birds as they pass through.

Note: Oil sac cutters must be equipped with an adequate supply of water to prevent the accumulation of visible contamination.

Oil glands are inedible products.

Evisceration (removal of internal organs)

Poultry may be eviscerated manually, or mechanically.

Regardless of which method is used birds must be eviscerated in a manner that prevents fecal (manure) contamination.

Note: Automatic venting equipment must be able to consistently open birds without causing contamination and must have a spray, of adequate volume and pressure, to remove all extraneous material from the machine.

The venting incision should be no larger than what is required to permit evisceration.

Note: Any water that accumulates in the vent area must be removed prior to opening the abdomen.

Hands and/or eviscerating equipment must be visibly clean before entering the abdominal cavity.

Note: Automatic evisceration machines must have a continuous supply of water, with enough pressure and volume to keep them free of extraneous material.

Cross contamination between carcasses should be prevented.

Note: Heads and necks must not drag over equipment as the birds move along the evisceration line.

In cases where the evisceration equipment is designed to completely detach the viscera the cavity and viscera may be sprayed with water providing:

1. The venting, opening and evisceration operations are controlled as part of a written program.
2. Pressure and total volume of water applied to the carcass during venting, opening and evisceration is measured by a gauge and water meter.
3. Post-mortem examinations are not compromised from excessive matter in the cavity resulting in the lost of any significant evidence of disease.

Note**:** Abattoirs lacking equipment that fully separates the viscera from the carcass are not permitted to shower carcasses or viscera during the evisceration process.

Automatic croppers must be equipped with a sufficient volume and pressure of water to prevent the accumulation of extraneous material on them.

Carcasses must be hung in a way that allows the MIB Inspector to observe the internal cavity, viscera and external surface.

Note: All viscera including the esophagus, crop, cloaca, lungs, trachea, kidneys and reproductive organs must be removed from the carcass following the post-mortem inspection and before the final wash.

Trimming and Salvage

All processing defects and contamination must be removed before the carcasses are chilled.

Note: If trimming is done manually a sanitizer must be available for the trimmer.

Abattoir operators may elect to salvage portions of carcasses accidentally contaminated with gastrointestinal contents at an off-line salvage and/or reprocessing station.

Note: Salvage operations must meet the following requirements:

a) adequate facilities are available for the salvage operations to be conducted;

b) salvage operations are conducted in a timely and sanitary manner;

c) carcasses are handled according to disposition criteria as set by the MIB Inspector;

d) salvage/reprocessing stations do not become overloaded with carcasses;

e) edible product is not contaminated by contact with inedible product or dirty equipment.

Washing

All carcasses must be washed, internally and externally, with sufficient quantity and pressure of clean potable water to ensure the removal of any visible contamination prior to chilling.

Note: If the inside and outside of the carcass is washed manually the thoracic inlet must be penetrated to ensure adequate washing and drainage.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Dressing Procedures-Poultry"** will be met when:

1. Written **"Dressing Procedures"** are on file.
2. Personnel responsible for conducting the dressing procedures are properly trained.
3. On site observation demonstrates that the written **"Dressing Procedures"** are being implemented and that carcasses are being dressed in a hygienic manner.

RELATED SECTIONS OF TIPM

02-N-07 Evisceration Line & Equipment

02-O-02 Poultry Salvaging Station

03-G-02 Dressing Procedures - Poultry

07-B-10 Meat By-product Harvesting - Poultry

SUBJECT: Dressing Procedures - Ratites	07-B-07
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 15.1, 66(1) & 66(2) Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Page 1 of 6**

RATIONALE

A significant challenge for the production of safe food, from ratites, is the prevention of contamination of edible products with the micro-organisms (bacteria, molds, fungi, etc.) on the surface of the skin, feathers and in the intestinal tract.

Note: Ratites are large flightless birds. In Canada the most common species are ostriches, emus and rheas.

The implementation of proper sanitary dressing procedures is one of the most important methods of minimizing the contamination of edible meat products with dander, feathers, intestinal contents, or other extraneous material.

Note: Dressing refers to all of the actions taken from time the bird has been stunned until the carcass and all other edible products are removed from the kill floor for further storage and/or processing.

Proper conduct of each phase of dressing requires skill on the part of plant personnel.

Note: All personnel involved in the dressing process must be adequately trained and/or supervised.

The surfaces of the carcass and edible organs must not be allowed to come into contact with the surface of the skin, intestinal contents or dirty equipment.

Note: This is particularly important during the evisceration processes.

Any contaminated areas of the carcass must be trimmed out or discarded.

Note: Washing is not sufficient for the removal of any visible contamination.

A problem unique to the dressing of ratites is determining whether the bird has an E.I.D. (Electronic Identification Device). If one is present it has to be found and removed.

The intent of this document is to **outline** the **procedures for** the **proper dressing** of **ratites**.

OBJECTIVE/OUTCOME

Written **"Dressing Procedures"** will be on file.

All carcasses will be dressed in a manner that:

1. Reduces the risk of contamination of the carcass and its parts or other meat products.
2. Ensures that all parts of the carcass retain their identity throughout the dressing procedure.

Note: Until such time as the inspection process has been completed the Meat Inspection Branch (MIB) Inspector must be able to match all organs and other parts with the carcass they came from at all stages of the dressing procedure. This is necessary in order to ensure an accurate post-mortem inspection is conducted and to ensure that all parts are properly disposed of in the event of a condemnation.

3. Results in the production of an unadulterated meat product.

The abattoir operator will assume responsibility for monitoring the performance of personnel to ensure that proper dressing procedures are conducted.

Note: The MIB Inspector is also responsible for monitoring dressing procedures and ensuring that the abattoir operator takes appropriate steps to correct any deficiencies.

The various steps, in the dressing procedure, will be conducted, as described in this document.

Note: Normal dressing procedures for ratites, consist of:

a) bleeding;
b) feather removal;
c) venting;
d) shank and feet removal;
e) removal of the hide;
f) location and removal of Electronic Identification Devices (EIDs);
g) head and neck removal;
h) evisceration (removal of internal organs);
i) trimming;
j) washing of the carcass

The following dressing procedures are considered to be “Common Industry Practice”.

Ratites can be dressed on the rail or on a skinning bed. Regardless of the method used carcasses must not be allowed to make contact with each other as they move from the bleeding area to the last inspection point.

Bleeding

Bleeding must take place within 90 seconds of stunning

Note: All birds must be rendered unconscious, prior to bleeding, by an approved method.

To promote better bleeding in ostriches it is best to sever the major vessels (jugular veins and carotid arteries) in the lower part of the neck near the inlet to the thorax (chest cavity).

Note: Care must be taken to ensure that the thoracic cavity is not penetrated.

Emus and rheas are generally bled by cutting the major vessels in the upper part of the neck similar to turkeys.

Bleeding must be conducted in a sanitary manner including sanitizing the bleeding knife between each carcass.

Note: A sanitizer must be available, in close proximity to the bleeding area.

The bleeding rail must be high enough to avoid contamination of the neck and any other portion of the carcass from contact with the floor.

Feather Removal

Feathers may be left on the carcass or they may be removed after stunning and bleeding and before skinning.

Note: If the feathers are going to be left on, the midline of the abdomen has to be cleaned (plucked) before the abdomen is opened for evisceration.

Dry hand picking, or clipping, are both acceptable ways of removing feathers.

Carcasses with the feathers removed must be washed before the abdomen is opened.

Note: All evidence of feathers and dander must be removed prior to evisceration.

Damaged areas of skin areas may require trimming.

Contamination of the evisceration area with dander is unacceptable and must be prevented.

Note: To prevent this all feathers must be collected in an acceptable manner and promptly moved to the inedible area.

Venting

The vent must be carefully dissected from its attachment, encased in a plastic bag, and securely tied.

Note: This is done to prevent leakage of feces (manure) during skinning and evisceration procedures.

Shank and Feet Removal

Skinning begins with the off-hoist leg. The skin is carefully reflected at a point distal to (below) the hock joint. The tarsal-metatarsal bones are cut just below the hock joint.

The carcass can then remain on-line or it can be lowered onto a skinning bed.

The second leg is removed in the same manner as the first one.

Note: If this is done on-line the first leg should be tied or otherwise fastened to prevent the carcass from falling off the gambrel while the second foot is removed.

If metatarsal (shank) and foot tissues are going to be saved, as edible material, then the shank and feet must be presented for post-mortem inspection.

Note: Shanks and feet that are not being salvaged for edible purposes do not need to be presented for inspection unless they were found to be affected with pathological (disease) conditions during the ante-mortem (before death) inspection.

Skinning

During the process of skinning the skin must be reflected away from the carcass in a manner, which prevents contact between the tissues of the carcass and the outer surface of the hide.

Note: Filtered air may be injected under the hide to facilitate skinning. Equipment used for this purpose must be approved by the MIB. The needle must be sanitized between each use and back-siphoning must be prevented in order to prevent the introduction of contamination under the skin.

After the legs have been skinned the breast and abdomen may be skinned and reflected.

Finally, the remaining skin should be removed manually or pulled off, in a downward direction, with a mechanical hide puller.

Note: The hide from the back legs must remain reflected back as the breast and abdomen is being skinned.

Removal of Electronic Identification Devices (EIDs)

EIDs must be detected and removed from the carcass.

Note: The abattoir operator is responsible for determining whether an EID (microchip) has been implanted in the bird.

Birds should not be accepted for slaughter unless the owner provides a written statement indicating that the bird has or hasn't been implanted.

If the bird has been implanted information must be provided which would indicate the location of the implant, the type of implant and the type of scanner that is most likely to be successful in detecting the implant.

A combination of manual inspection and scanning is employed to detect any EIDs.

Note: In Canada, most EIDs are implanted close to the skull but they often migrate thus it is not unusual to find them at the level of the thoracic inlet. Inspectors must be vigilant. Some birds may have old EIDs, which are "dead" and undetectable with electronic scanners.

All EIDs must be removed either by locating them with an electronic scanner or by removing the part that was implanted (the entire neck).

Note: Any carcass that is suspected of having an EID will not pass the post-mortem inspection until the device is found. All EIDs must be properly disposed of to ensure that they don't gain access to meat products intended for use in human or animal food.

Head & Neck Removal

The skin of the neck must be reflected from the neck, by hand, or pulled down during the hide removal process.

The neck is then incised longitudinally (lengthwise) to expose, strip, and tie the esophagus.

Note: The identity of the head and neck and the carcass they came from must be maintained until all inspections have been completed. The head must be carefully handled, during removal, in order to prevent contamination of edible parts.

If the neck is going to be saved as edible product, the head is removed and placed adjacent to the viscera inspection station.

Note: The neck and trachea may remain attached to the carcass providing the rail is high enough to prevent contact with the floor. Alternatively, the neck and trachea may be removed and presented for inspection with the edible viscera.

If the neck is not going to be saved, as edible product, the neck and trachea with the head attached can be placed adjacent to the viscera inspection station after removal from the carcass.

Evisceration (removal of internal organs)

Evisceration may be done on-line, or on a dressing bed.

Evisceration begins with a midline incision into the abdomen caudal (posterior, or behind) to the breastplate.

Note: Caution should be taken to avoid perforating the intestines.

When ostriches are eviscerated on-line, it is suggested to start by removing the breastplate (rattus) then pulling it down to expose the thoracic viscera (internal organs).

Note: This is accomplished by cutting the ribs on each side of the plate.

In rheas and emus, the breastbone can be split on the midline.

Note: The MIB Inspector should be given a chance to view the air sacs before any of the thoracic viscera is removed.

The heart, lungs and liver should be removed before the rest of the abdominal organs are removed.

Note: This is done to prevent the chance of contamination from rupture of the friable (fragile) intestines.

The intestines are removed by pulling them through the vent opening in the abdominal cavity.

Note: The vent should have been bagged before the start of skinning.

The liver (if not removed already) and spleen is removed with the intestinal tract. They are then separated and placed in the viscera inspection tray.

Note: The intestinal tract must be placed in a separate tray for inspection.

The heart and lungs are removed (if not done previously) as a unit and placed with the liver and spleen in the viscera inspection tray.

Note: The kidneys must be observed in the carcass by an inspector. After this has been done they are removed from their crypts and placed in the viscera tray for further inspection.

Any portions of the carcass that are accidentally contaminated with stomach, or intestinal, contents must be trimmed without delay during the evisceration procedure.

Trimming

Any visible areas of contamination as well as stick wounds, blood clots, and bruised tissue must be removed by trimming.

Washing

The final step in the dressing procedure is a thorough wash followed by an examination, by abattoir personnel, to check for cleanliness.

Note: The MIB Inspector will supervise this activity.

Following the final wash the carcass must be promptly chilled.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Dressing Procedures- Ratites"** will be met when:

1. Written **"Dressing Procedures"** are on file.
2. Personnel responsible for conducting the dressing procedures are properly trained.
3. On site observation demonstrates that the written **"Dressing Procedures"** are being implemented and that carcasses are being dressed in a hygienic manner.

RELATED SECTIONS OF TIPM

07-B-11 Meat By-product Harvesting – Miscellaneous Species

SUBJECT: Meat By-product Harvesting - Beef	07-B-08
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Section 15.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Revised on** Sept 1, 2010 **Page 1 of 6**

RATIONALE

All by-products intended for human consumption must be handled in a manner that ensures they are safe.

Note: To ensure that by-products are safe the following fundamental principles must be observed as they are harvested:

a) the identity of the by-products must be maintained until the corresponding carcass is inspected and approved;

b) they will be handled in a hygienic manner and chilled promptly to prevent contamination and/or decomposition;

c) if a particular kind of by-product from several animals is collected in one container and one of the carcasses is condemned, all by-products harvested in that particular container must be condemned;

d) all by-products must be prepared, packaged and stored in an acceptable sanitary manner.

The intent of this document is to **outline** the **procedures** for the **proper harvesting** of **beef by-products**.

OBJECTIVE/OUTCOME

The facility will have appropriate facilities and equipment for the separation, chilling, packaging, labeling, and storage of meat by-products.

Slaughter, dressing, trimming and washing of a carcass and its parts will be done in a manner that:

1. Reduces the risk of contamination of the carcass, all edible organs, or other meat products.
2. Ensures that a complete post-mortem inspection has been completed on the carcass and all of its parts.
3. Ensures that proper dispositions, of all edible by-products, have been made, following the post-mortem inspection.

Note: To ensure proper disposition the identity of all beef by-products must be maintained until the post-mortem inspection has been completed on the carcass from which they originated.

The abattoir operator will ensure that **all by-products** are:

1. Taken **from approved carcasses**.

2. **Free of lesions** (abnormalities).
3. **Properly prepared** to ensure freedom from contamination.

Operators shall ensure and demonstrate in an ongoing manner that they are achieving compliance with the following cooling performance standards for red meat offals:

(1) The cooling of offal is continuous at the level of it's surface of concern

(2) The surface of concern is at 7 °C or less within 12 hours after the offal is harvested;

(3) Offal temperatures must continue to go down in a continuous manner to 4 °C or less after the conditions in (2) are met. This should take place as quickly as possible, and the cooling media (during cooling from 7 °C to 4 °C) shall be maintained at a temperature of 4 °C or less.

Note: Responsible abattoir personnel must monitor the rate of chilling of by-products.

By-products must not be permitted to remain in un-refrigerated areas for any extended periods of time.

The abattoir operator will assume responsibility for monitoring the performance of abattoir personnel to ensure they follow proper procedures.

Note: The MIB Inspector is responsible for monitoring procedures and ensuring that the plant operator takes appropriate steps to correct any deficiencies.

Individual by-products will be handled as described below.

Brains

Brains may be prepared, as an edible by-product providing **THEY ARE NOT**:

1. From animals that are over thirty months (OTM) of age.
2. Contaminated with bone splinters, bullet particles, hide, hair, etc.

Note: Brains from animals stunned with a penetrating percussion pistol can be used for human consumption providing they are trimmed appropriately.

Brains cannot be used for human, or animal, food if lead, or other types of fragile bullets were used to stun the animal.

Brains that contain particles of skin, bone or blood clots can be salvaged for animal food following removal of these items.

Brains intended for human consumption must be washed and refrigerated without delay following inspection.

Casings

The intestines, bladder and esophagus can be used for the production of casings providing they are free of any pathological lesions.

Note: Preparation of casings should be done in an area separate from the kill floor.

Acceptable methods of producing casings are too numerous to get into detail in this document.

Note: Details of casing preparation including separation, cleaning, sliming, washing, testing, salting, etc. should be reviewed in appropriate textbooks on meat hygiene and documented in the facility's written salvaging procedures.

Fatty Tissues

The sanitary collection of clean fatty tissue, from approved dressed carcasses and approved detached portions, shall be carried out as quickly as possible.

Note: Fat taken from carcasses before they have been approved is not suitable for use as an edible by-product.

All fatty tissues, to be used as edible product, must be refrigerated, or rendered, immediately after collection.

Note: Fatty tissues intended to be used in the production of partially defatted tissue must not contain bone.

Feet/Hooves

Feet may be harvested for human food provided they are:

1. Taken from approved carcasses.
2. Free of any visible lesions.
3. Cleaned with hot water (scalded) to ensure the complete removal of any manure, hair, or other foreign material from the hoof and adjacent hide.

   Note: The proximal (upper) open end of the foot will become contaminated during the scalding process. This surface contamination must be removed by trimming following cleaning.

   Ethnic groups that use beef feet, as edible material, are only interested in the tissues located within the hoof; therefore the complete removal of the hoof sole, wall, and adjacent skin is an alternative method of processing.
4. Placed in a cooler as soon as processing has been completed.

   Note: If there is any concern about possible cross contamination of other edible product, in the cooler, the MIB Inspector may require that the hooves be placed in a suitable container before being placed in the cooler.

Heads

Intact heads are suitable for retail sale providing they have been skinned and are visibly clean, and the oral cavity and nasal passages are flushed.

Hearts

Hearts may be prepared, as an edible by-product providing they are properly trimmed and opened to permit the complete removal of all blood clots.

Hearts must be trimmed to remove the major blood vessels (aorta, pulmonary artery, vena cava, etc.) within 2 cm of their origin and to remove the os cordis if necessary.

Note: The os cordis is a bone located in the heart of mature beef animals. If not done at the abattoir, removal must be carried out at a suitable facility.

The term “boneless beef” can only be applied to beef hearts from which the os cordis has been removed.

The atria do not need to be trimmed, except to accommodate removal of the major blood vessels.

After washing, hearts must be drained and refrigerated.

Intestines, Bungs, Reproductive Organs and Gall Bladders/Bile

Intestines, bungs, reproductive organs and gall bladder/bile are usually harvested for ethnic trade.

Note: To be harvested these by-products must be free of pathological lesions.

Mammary glands (udders) must be non-lactating (not producing milk).

Rinsed product must be examined by responsible plant personnel, prior to further handling, (e.g. bungs must be salted following cleaning).

Note: The MIB Inspector is responsible for monitoring the effectiveness of the procedures that are conducted.

Kidneys

Kidneys are suitable for human consumption providing they are free of any pathological lesions.

Kidneys must be deeply incised and soaked in water and washed, before they are incorporated into any meat products.

Livers

Beef livers for human consumption must be prepared as follows:

1. The gall bladder has to be removed.

   Note: Care must to be taken to avoid any spillage of bile.

2. Small lesions such as dry adhesions, parasite scars, etc. can be removed by trimming.

   Note: Livers that are more severely affected with these, or other, conditions may be salvaged for animal food.

Approved livers must be chilled by immersion in cold running water or by air chilling in a cooler.

Note: Livers are hung on racks, or placed in trays, when placed in a cooler for air chilling.

Livers may also be packed and frozen.

Lungs

Lungs are suitable for human consumption providing they are free of any pathological lesions or contamination.

Note: The trachea and main bronchi of the lungs must be opened for inspection to ensure that they are free of parasites or ingesta (stomach contents).

Lungs that have been approved for human consumption, or animal food, must be chilled before packaging, or alternatively they can be packed and frozen.

Spleens

Spleens are suitable for human consumption providing they are free of any pathological lesions or contamination.

Spleens that have been approved for human consumption, or animal food, must be chilled before packaging, or alternatively they can be packed and frozen.

Stomach [Abomasum, Omasum, Reticulum, and Rumen (Paunch/Green Tripe)]

These compartments of the bovine stomach are suitable for human consumption providing they are free of pathological lesions.

Stomachs must be handled in the following manner:

1. The stomach contents are removed.
2. The raw product is washed inside and out.

   Note: Any contamination, of the attached fat, that isn't removed by washing must be trimmed.
3. The rinsed product must be examined by responsible abattoir personnel, prior to further handling (e.g. chilling and packing in the case of raw product, or scalding in the case of other product).

   Note: The MIB Inspector is responsible for monitoring the effectiveness of the procedures being followed.
4. The mucosal (inner) lining of the rumen (processed tripe) must be entirely removed before the product is chilled.

The preparation of this material should, as far as plant facilities permit, be carried out in a location separate from the slaughter floor.

The use of automated equipment requires the prior approval of the MIB Area Manager.

Note: This approval is required to ensure that approved materials and procedures are used.

Tails

Meat from the tail of cattle, of any age, is suitable for human consumption providing it is from an approved carcass.

Note: If the tail is harvested before the final approval of the dressed carcass the identity of tails must be maintained until inspection of the carcass has been completed.

Incidental contamination of skinned tails must be removed by trimming prior to washing.

Approved tails must be placed in containers, or hung on racks, for refrigeration.

Thymus (Sweetbread)

The thymus gland, of cattle, is an edible product providing it is free of any pathological (disease) lesions.

Approved thymus glands must be washed, to remove blood and blood clots, and chilled before packaging, or packed and frozen.

Tongues

The tongue must be trimmed to remove any portions of the larynx, epiglottis, or tonsils.

Note: The severed base of the tongue may also have to be trimmed if there is any contamination.

Tongues must be washed prior to chilling.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Meat By-product Harvesting- Beef"** will be met when:

1. Up-to-date, facility specific, written "**Meat By-Product Harvesting Procedures**" are on file.

   Note: These procedures must:

   (a) have detailed instructions relating to the all items being salvaged, including aspects of the collection, packaging, labeling and storage of meat by-products

   (b) detail the facilities, areas and equipment that will be used, and the operational controls that will be in place, including chilling and sanitary requirements.

2. Personnel responsible for harvesting the meat by-products are properly trained.
3. On site observation demonstrates that the written **"By-product Harvesting Procedures"** are being implemented and that by-products are harvested in a hygienic manner.

RELATED SECTIONS OF TIPM

03-G-01 Dressing Procedures - Red Meat

07-B-01 Dressing Procedures - Cattle & Calves

10-B-01 Salvage for Animal Food

10-B-02 Salvage for Miscellaneous Purposes

ATTACHMENT-TIPM DOCUMENT 07-B-08

APPENDIX 1 – DISPOSITION FOR ANIMAL FOOD

CONDITION	COMMENTS/UTILIZATION
Abscesses 001 Module 6-1-1	**LIVERS** One abscess-Condemned liver is suitable for animal food once abscess has been removed. Multiple abscesses- Condemned liver is not suitable for animal food. **CARCASS** Numerous abscess or systemic effect, carcass is suitable for animal food after removal of lesions or affected parts.
Actinobacillosis (Wooden Tongue) 401 Module 6-1-6	Individual **condemned heads** and heads from carcasses condemned for emaciation, or other systemic changes, **are not suitable for animal food**.
Actinomycosis (Lump Jaw) 403 Module 6-1-131	Condemned **livers are not suitable for animal food**. Condemned **carcasses are suitable** for animal food **following removal of the liver**.
Adhesions - 511 Peritonitis 571 Module 6-1-177	In acute peritonitis, condemned material is **suitable** for animal food **following removal of the lesions providing there is no evidence of septicemia.** Condemned **material from carcasses with a septicemia is not suitable for animal food.** Material condemned for adhesions is suitable for animal food.
Adhesions - 511 Pleuritis 577 Module 6-1-180	Material from carcasses condemned for acute pleuritis is **suitable** for animal food **following removal of the lesions** providing there is no evidence of septicemia. Condemned **material from a carcass with septicemia is not suitable for animal food**. Material condemned for adhesions is suitable for animal food.
Anemia 910 Module 6-1-10	Condemned materials are suitable for animal food provided the anemia is not accompanied by septicemia.
Arthritis 512 Module 6-1-12	Condemned materials are **suitable for animal food following removal of affected joints** providing there are no indications of a concurrent septicemia.
Ascaris suum (Milk Spots - Pig Round Worm) 790 Module 6-1-167	Condemned livers are suitable for animal food because the lesions are only scars.

Ascities 320 Module 6-1-16	Condemned materials are suitable for animal food.
Atrophic Rhinitis 455 Module 6-1-192	Condemned **heads are not suitable for animal food** primarily because of the association between cats and atrophic rhinitis.
Atrophy 210 Module 6-1-20	Condemned material is suitable for animal food.
Black Leg 410 Module 6-1-22	Condemned **material is not suitable for animal food**.
Bone Infection (Osteomyelitis) 150 Module 6-1-166	Condemned material is **suitable** for animal food **following removal of affected bones and lymph nodes.**
Bovine Squamous Cell Carcinoma (Cancer Eye) 620 Module 6-1-227	Condemned material, other than heads with abscessed or necrotic lesions, is suitable for animal food.
Bovine Virus Disease (BVD)/ Erosions 094 Module 6-1-79	Condemned material is suitable for animal food.
Bruising 051 Module 6-1-24	Condemned material is suitable for animal food.
Bursitis (Hygroma) 080/081 Module 6-1-26	Condemned material is suitable for animal food.
Calcification 710 Module 6-1-29	Condemned material is suitable for animal food.
Calculi (stones) 355 Module 6-1-210	Affected tissues are suitable for animal food.
Cannibalism 007 Module 6-1-212	Condemned material is **suitable** for animal food **following removal of abscesses**.
Caseous Lymphadenitis (CLA) 420 Module 6-1-31	Condemned material is **suitable** for animal food **following the removal of the abscessed lymph nodes.**
Cellulitis 800 Module 6-1-35	Condemned material is **not suitable for animal food**.
Cirrhosis 521 Module 6-1-37	Condemned livers are suitable for animal food.
Coccidiosis 720 Module 6-1-39	Condemned material is suitable for animal food.

Congestion 523 Module 6-1-42	Condemned material is suitable for animal food.
Congestive Heart Failure (Ascities - 320 & Edema - 340) Module 6-1-16	Condemned materials are suitable for animal food.
Cryptorchid (Ridgeling) 060 Module 6 – 1 - 195	Condemned material is suitable for animal food.
Cysticercosis 735 Module 6-1-44	**Materials condemned for C. ovis, pisiformis, or tenuicollis are not suitable for animal food.**
Cysts 092 Module 6 -1-54	Condemned materials are suitable for animal food.
Dermatitis 810 Module 6-1-56	In general **most materials**, condemned for various conditions in this section **are not suitable for animal food**.
Diamond Skin Disease (Erysipelas) 435 Module 6-1-61	Condemned material is **not suitable for animal food**.
Edema 340 Module 6-1-16	Condemned materials are suitable for animal food.
Emaciation (Serous Atrophy of Fat) 220 Module 6-1-64	Condemned materials are suitable for animal food.
Emphysema 082 Module 6-1-69	Condemned materials are suitable for animal food.
Endocarditis 572 Module 6-1-72	Condemned material is **not suitable for animal food.**
Enteritis 530 Module 6-1-75	**Condemned material is not suitable for animal food.**
Eosinophilic Myositis 551 Module 6-1-78	**Condemned material is not suitable for animal food.**
Erosions 094 Module 6-1-79	Condemned materials are suitable for animal food.
Erythemia 523 Module 6-1-42	Condemned materials are suitable for animal food.
Erythropoietic Porphyria (Osteohemachromatosis) 130-Module 6-1-162	Condemned materials are suitable for animal food.

Exostosis 120 Module 6-1-82	Condemned materials are suitable for animal food.
Fatty Infiltration 230 Module 6-1-83	Condemned materials are suitable for animal food.
Fibrosis 968 Module 6-1-88	Condemned materials are suitable for animal food.
Fistula 002 Module 6-1-89	Condemned material is **not suitable for animal food.**
Foot Rot (Pododermatitis) 861 Module 6-1-91	Condemned materials are suitable for animal food.
Foreign Body 850 Module 6-1-92	Condemned materials are suitable for animal food.
Foot and Mouth Module 6-1-79	
Frostbite 049 Module 6-1-95	Condemned materials are suitable for animal food.
Gangrene 260 Module 6-1-97	Condemned material is **not suitable for animal food.**
Gastritis 535 Module 6-1-99	Condemned material is **not suitable for animal food.**
Goiter (Hypertrophy) 830 Module 6-1-116	Condemned materials are suitable for animal food.
Granuloma 623 Module 6-1-101	Condemned materials are suitable for animal food.
Granulomatous Lymphadenitis 495 Module 6-1-101	**Affected lymph nodes are not suitable for animal food** but other condemned materials are suitable.
Hardware Disease (Traumatic Reticulitis Complex) 855 Module 6-1-104	Condemned material is **suitable** for animal food **following removal of the lesions** unless there are signs of septicemia. **If there is evidence of septicemia condemned material is not suitable** for animal food.
Hemangioma 625 Module 6-1-230	Condemned materials are suitable for animal food.
Hematoma and Hemorrhage (Major)	

053 – Hematoma for clotted blood 576 – Hemorrhage/Major for large accumulations of unclotted blood Module 6-1-107	Condemned materials are suitable for animal food.
Hemorrhage (Petechial and Ecchymotic) 575 – Hemorrhage (Petechial) for pinpoint or petechial, hemorrhages 574 – Hemorrhage/Splash (Ecchymosis) for larger ecchymotic hemorrhages Module 6 -1 - 109	Condemned materials are suitable for animal food.
Hernias 095 Module 6 -1 -198	Condemned material is **suitable** for animal food, **following removal of any peritonitis lesions**, providing emaciation is the primary reason for condemnation.
Hydatid Cysts 089 Module 6-1-112	Condemned material is **not suitable for animal food.**
Hydronephrosis 563 Module 6 -1- 114	Condemned material is **not suitable for animal food.**
Hyperkeratosis 810 (Dermatitis) Module 6-1-57	In general **most materials**, condemned for various conditions in this section **are not suitable for animal food**.
Hypertrophy 830 Module 6-1-116	Condemned materials are suitable for animal food.
Icterus (Jaundice) 920 Module 6-1-123	**Providing there is no indication of septicemia** condemned material is suitable for animal food.
Injection Site Lesions 065 (Antibiotic Residue) 265 (Injection Site) Module 6-1-120	Condemned materials are suitable for animal food.
Intestinal Emphysema (Pigs) 082 Module 6-1-69	Condemned materials are suitable for animal food.
Jaundice (Icterus) 920 Module 6-1-123	**Providing there is no indication of septicemia** condemned material is suitable for animal food.
Joint III (Navel Infection/Omphalophlebitis) 445 Module 6-1-148	Providing there is no septicemia **condemned carcasses are suitable** for animal food **following removal of the lesions**. **Carcasses affected with septicemia are not suitable for animal food.**
Kidney Cysts 092 Module 6 -1-54	Condemned materials are suitable for animal food.

Liver Flukes 760 Module 6-1-127	Condemned **livers are not suitable for animal food**. Condemned **carcasses are suitable** for animal food **following removal of the liver**.
Lump Jaw (Actinomycosis) 403 Module 6-1-131	Condemned **livers are not suitable for animal food**. Condemned **carcasses are suitable** for animal food **following removal of the liver**.
Lymphadenitis 546 Module 6-1-134	Condemned material is **not suitable for animal food.**
Lymphosarcoma 635 Module 6-1-232	Condemned materials are suitable for animal food.
Mange (Dermatitis) 810 Module 6-1-56	In general **most materials**, condemned for various conditions in this section **are not suitable for animal food**.
Mastitis 547 Module 6-1-137	Condemned **udders are not suitable for animal food.** **Condemned carcasses are suitable** for animal food following removal of the udder and **providing there is no evidence of septicemia**.
Melanoma 645 Module 6-1-236	Condemned materials are suitable for animal food.
Melanosis 071 Module 6-1-140	Condemned materials are suitable for animal food.
Mesotheliomas 660 Module 6-1-242	Condemned materials are suitable for animal food.
Metritis 548 Module 6-1-143	Providing there is no evidence of a septicemia condemned material is **suitable for animal food following removal of the uterus.**
Myositis 550 Module 6-1-146	Condemned material is **not suitable for animal food.**
Navel Infection (Omphalophlebitis) 445 Module 6-1-148	Providing there is no septicemia **condemned carcasses are suitable** for animal food **following removal of the lesions**. **Carcasses affected with septicemia are not suitable for animal food.**
Nephritis 560 Module 6-1-151	Condemned kidneys are **not suitable for animal food.** Other condemned material is **suitable** for animal food **following removal of the kidneys**.
Neurofibroma 660-Module 6-1-241	Condemned materials are suitable for animal food.

Neurological Disorders Module 6-1-153	Condemned material is **not suitable for animal food.**
Ochranosis 071 Module 6-1-142	Condemned materials are suitable for animal food.
Orchitis 570 Module 6-1-161	Carcasses condemned for emaciation are **suitable** for animal food **following removal of the testicles.**
Osteohemachromatosis (Pink Tooth) 130 Module 6-1-162	Condemned materials are suitable for animal food.
Osteomalacia 141 Module 6-1-164	Condemned materials are suitable for animal food.
Osteomyelitis 150 Module 6-1-166	Condemned material is **suitable** for animal food **following removal of affected bones and lymph nodes.**
Pericarditis 571 Module 6-1-175	Condemned material is **not suitable for animal food.**
Peritonitis 573 Module 6-1-177	In acute peritonitis, condemned material is **suitable** for animal food **following removal of the lesions providing there is no evidence of septicemia.**
	Condemned **material from carcasses with a septicemia is not suitable for animal food.**
	Material condemned for adhesions is suitable for animal food.
Pityriasis Rosea 810 Module 6-1-58	Condemned material is **not suitable for animal food.**
Pleuritis 577 Module 6-1-180	Material from carcasses condemned for acute pleuritis is **suitable** for animal food **following removal of the lesions** providing there is no evidence of septicemia. Condemned **material from a carcass with septicemia is not suitable for animal food**. Material condemned for adhesions is suitable for animal food.
Pneumonia 579 Module 6-1-182	Providing there is no evidence of septicemia condemned material is **suitable** for animal food

	following removal of the lungs. **Carcasses with a septicemia are not suitable for animal food.**
Pork Tapeworm (Cysticercus cellulosae) 735 Module 6-1-44	Federal CFIA guidelines have a zero tolerance for C. cellulosae. **A single cyst is considered sufficient to condemn a carcass.**
Pyelonephritis 566 Module 6-1-189	Condemned material is **suitable** for animal food **following removal of the kidneys** providing there is no evidence of a septicemia. Condemned **material from animals with a septicemia is not suitable** for animal food.
Ridgeling (Retained Testicle/Cryptorchid) 060/064 Module 6-1-195	Condemned materials are suitable for animal food.
Rhinitis 455 Module 6-1-193	Condemned **heads are not suitable for animal food** primarily because of the association between cats and atrophic rhinitis.
Sarcocystosis 770 Module 6-1-201	Condemned material is **not suitable for animal food.**
Sawdust Liver 520 Module 6-1-203	Condemned materials are suitable for animal food.
Septicemia 930 Module 6-1-207	Condemned material is **not suitable for animal food.**
Serous Atrophy of Fat (Emaciation) 220 Module 6-1-64	Condemned materials are suitable for animal food.
Steatitis (Yellow Fat Disease) 102 (Not Otherwise Specified) Module 6-1-209	Condemned materials are suitable for animal food.
Stones (Calculi) 091 Module 6-1-212	Affected tissues are suitable for animal food.
Tail Biting (Cannibalism) 007 Module 6-1-215	Condemned material is **suitable** for animal food **following removal of abscesses.** Lungs with embolic abscesses are not suitable for animal food.
Telangiectasis 200 Module 6-1-217	Condemned Material is suitable for animal food.

Toxemia 960 Module 6-1-219	Condemned Material is suitable for animal food.
Trichinosis 101 Module 6-1-222	Condemned material is **not suitable for animal food.**
Tuberculosis (TB) 490 Module 6-1-226	Condemned material is **not suitable for animal food.**
Tumor-Cancer Eye (Bovine Squamous Cell Carcinoma) 620 Module 6-1-229	Condemned material, **other than heads with abscesses or necrotic lesions**, is suitable for animal food.
Tumor-Hemangioma 625 Module 6-1-231	Condemned materials are suitable for animal food.
Tumor-Lymphosarcoma 635 Module 6-1-235	Condemned materials are suitable for animal food.
Tumor-Melanoma 645 Module 6-1-238	Condemned materials are suitable for animal food.
Tumors-Miscellaneous 660 Module 6-1-243	Condemned materials are suitable for animal food.
Uremia 350 Module 6-1-245	Condemned materials are suitable for animal food.
Waterbelly (Urolithiasis) 355 Module 6-1-248	Condemned materials are suitable for animal food.
White Muscle Disease 211 Module 6-1-249	Condemned materials are suitable for animal food.
Xanthosis 079 Module 6-1-251	Condemned materials are suitable for animal food.

SUBJECT: Meat By-product Harvesting - Pork	07-B-09
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Section 15.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Revised on** Sept 1, 2010 **Page 1 of 5**

RATIONALE

All by-products intended for human consumption must be handled in a manner that ensures they are safe.

Note: To ensure that by-products are safe the following fundamental principles must be observed as they are harvested:

a) the identity of the by-products must be maintained until the corresponding carcass is inspected and approved;

b) they will be handled in a hygienic manner and chilled promptly to prevent contamination and/or decomposition;

c) if a particular kind of by-product from several animals is collected in one container and one of the carcasses is condemned, all by-products harvested in that particular container must be condemned;

d) all by-products must be prepared, packaged and stored in an acceptable sanitary manner.

The intent of this document is to **outline** the **procedures for** the **proper harvesting** of **pork by-products**.

OBJECTIVE/OUTCOME

The facility will have appropriate facilities and equipment for the separation, chilling, packaging, labeling and storage of meat by-products.

Slaughter, dressing, trimming and washing of a carcass and its parts will be done in a manner that:

1. Reduces the risk of contamination of the carcass, all edible organs, or other meat products.
2. Ensures that a complete post-mortem inspection has been completed on the carcass and all of its parts.
3. Ensures that proper dispositions, of all edible by-products, have been made, following the post-mortem inspection.

Note: To ensure proper disposition the identity of all pork by-products must be maintained until the post-mortem inspection has been completed on the carcass from which they originated.

The abattoir operator will ensure that **all by-products** are:

1. Taken **from approved carcasses**.

2. **Free of lesions** (abnormalities).
3. **Properly prepared** to ensure freedom from contamination.

All edible by-products will be chilled to 4^0 C within 4 hours, or frozen, as soon as possible.

Note: Responsible abattoir personnel must monitor the rate of chilling of by-products.

By-products must not be permitted to remain in un-refrigerated areas for any extended periods of time.

The abattoir operator will assume responsibility for monitoring the performance of abattoir personnel to ensure they follow proper procedures.

Note: The MIB Inspector is responsible for monitoring procedures and ensuring that the plant operator takes appropriate steps to correct any deficiencies.

Individual by-products will be handled as described below.

Brains

Brains may be prepared, as an edible by-product providing **THEY ARE NOT** contaminated with bone splinters, bullet particles, hide, hair, etc

Note: Brains from animals stunned electrically, or with a penetrating percussion pistol (captive bolt), can be used for human consumption if adequately trimmed.

Brains can't be used for human, or animal, food if lead or other types of fragile bullets were used to stun the animal.

Brains that contain particles of skin, bone or blood clots can be salvaged for animal food.

Brains that are suitable for human consumption must be washed and refrigerated without delay after inspection.

Casings

The intestines, bladder and esophagus can be used for the production of casings providing they are free of any pathological lesions.

Note: Preparation of casings should be done in an area separate from the kill floor.

Hog urinary bladders must be emptied, inverted, flushed with water, and soaked in brine for a minimum of 12 hours.

Other procedures and methods of producing casings are too numerous to get into detail in this document.

Note: Details of casing preparation including separation, cleaning, sliming, washing, testing, salting, etc. should be reviewed in appropriate textbooks on meat hygiene and documented in the facility's written salvaging procedures.

Fatty Tissues

The sanitary collection of clean fatty tissue, from approved dressed carcasses and approved detached portions, shall be carried out as quickly as possible.

Note: Fat taken from carcasses before they have been approved is not suitable for use as an edible by-product.

All fatty tissues, to be used as edible product, must be refrigerated, or rendered,

immediately after collection.

Note: Fatty tissues intended for use in the production of partially defatted tissue must not contain bone.

Feet

Feet may be harvested for human food provided they are:

1. Taken from approved carcasses.
2. Free of any visible lesions.
3. Cleaned with hot water (scalded) to ensure the complete removal of any manure, or other foreign material from the hoof and adjacent hide or they can be skinned including complete removal of the hoof wall (shell).

   Note: The proximal (upper) open end of the foot will become contaminated during the scalding process. This surface contamination must be removed by trimming following cleaning.

   The inter-digital spaces (between the toes) require special attention to completely remove any dirt, scurf and bristles.
4. Placed in a cooler as soon as processing has been completed.

   Note: If there is any concern about possible cross contamination of other edible product, in the cooler, the MIB Inspector may require that the hooves be placed in a suitable container before being placed in the cooler.

Heads

Intact heads are suitable for retail sale providing they have been skinned, or shaved, and are visibly clean.

Hearts

Hearts may be prepared, as an edible by-product providing they are properly trimmed and opened to permit the complete removal of all blood clots.

Hearts must be trimmed to remove the major blood vessels (aorta, pulmonary artery, vena cava, etc.) within 2 cm of their origin.

Note: The atria do not need to be trimmed, except to accommodate removal of the major blood vessels.

After washing, hearts must be drained and refrigerated.

Intestines, Bungs, Reproductive Organs and Bile

Intestines, bungs, reproductive organs and bile are usually harvested for ethnic trade.

Note: To be harvested these by-products must be free of pathological lesions.

Rinsed product must be examined by responsible abattoir personnel, prior to further handling, (e.g. bungs must be salted following cleaning).

Note: The MIB Inspector is responsible for monitoring the effectiveness of the procedures that are followed.

Kidneys

Hog kidneys are suitable for human consumption providing they are free of any pathological lesions.

Kidneys must be deeply incised and soaked in water and washed, before they are incorporated into any meat products.

Livers

Hog livers for human consumption must be prepared as follows:

1. The gall bladder has to be removed.

   Note: Care must to be taken to avoid any spillage of bile.

2. Small lesions, such as dry adhesions, parasite scars, etc. can be removed by trimming.

   Note: Livers that are more severely affected with these, or other similar conditions, may be salvaged for animal food.

Approved livers must be chilled by immersion in cold running water or by air chilling in a cooler.

Note: Livers are hung on racks, or placed in trays, when placed in a cooler for air chilling.

Livers may also be packed and frozen.

Lungs

Lungs are suitable for human consumption providing they are free of any pathological lesions or contamination.

Note: The trachea and main bronchi of the lungs must be opened for inspection to ensure that they are free of ingesta (stomach contents) or any aspirated scald water. Contaminated lungs will not be approved for human consumption.

Lungs that have been approved for human consumption, or animal food, must be chilled before packaging, or alternatively they can be packed and frozen.

Spleens

Spleens are suitable for human consumption providing they are free of any pathological lesions or contamination.

Spleens that have been approved for human consumption, or animal food, must be chilled before packaging, or alternatively they can be packed and frozen.

Stomachs

Hog stomachs may be used for human consumption providing they are free of pathological lesions.

Separated hog stomachs must be opened, emptied and thoroughly washed.

To be used in prepared meat products the hog stomachs must be scalded and the mucous (inner) lining must be completely removed.

The preparation of hog stomachs should be carried out in a room separate from the slaughter floor.

Tongues

The tongue must be trimmed to remove any portions of the larynx, epiglottis, or tonsils.

Note: The severed base, of the tongue, may also have to be trimmed if there is any contamination.

Tongues must be washed prior to chilling.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Meat By-product Harvesting- Pork"** will be met when:

1. Up-to-date, facility specific, written "**Meat By-Product Harvesting Procedures**" are on file.

   Note: These procedures must:

   i. have detailed instructions relating to the all items being salvaged, including aspects of the collection, packaging, labeling and storage of meat by-products

   ii. detail the facilities, areas and equipment that will be used, and the operational controls that will be in place, including chilling and sanitary requirements.

2. Personnel responsible for harvesting the meat by-products are properly trained.
3. On site observation demonstrates that the written **"By-product Harvesting Procedures"** are being implemented and that by-products are harvested in a hygienic manner.

RELATED SECTIONS OF TIPM

03-G-01 Dressing Procedures - Red Meat

07-B-02 Dressing Procedures - Hogs

10-B-01 Salvage for Animal Food

10-B-02 Salvage for Miscellaneous Purposes

ATTACHMENT-TIPM DOCUMENT 07-B-09

APPENDIX 1 – DISPOSITION FOR ANIMAL FOOD

CONDITION	COMMENTS/UTILIZATION
Abscesses 001 Module 6-1-1	**CARCASS** Numerous abscess or systemic effect, carcass is suitable for animal food after removal of lesions or affected parts.
Actinobacillosis (Wooden Tongue) 401 Module 6-1-6	Individual **condemned heads** and heads from carcasses condemned for emaciation, or other systemic changes, **are not suitable for animal food**.
Actinomycosis (Lump Jaw) 403 Module 6-1-131	Condemned **livers are not suitable for animal food**. Condemned **carcasses are suitable** for animal food **following removal of the liver**.
Adhesions - 511 Peritonitis 571 Module 6-1-177	In acute peritonitis, condemned material is **suitable** for animal food **following removal of the lesions providing there is no evidence of septicemia.** Condemned **material from carcasses with a septicemia is not suitable for animal food.** Material condemned for adhesions is suitable for animal food.
Adhesions - 511 Pleuritis 577 Module 6-1-180	Material from carcasses condemned for acute pleuritis is **suitable** for animal food **following removal of the lesions** providing there is no evidence of septicemia. Condemned **material from a carcass with septicemia is not suitable for animal food**. Material condemned for adhesions is suitable for animal food.
Anemia 910 Module 6-1-10	Condemned materials are suitable for animal food provided the anemia is not accompanied by septicemia.
Arthritis 512 Module 6-1-12	Condemned materials are **suitable for animal food following removal of affected joints** providing there are no indications of a concurrent septicemia.
Ascaris suum (Milk Spots - Pig Round Worm) 790 Module 6-1-167	Condemned livers are suitable for animal food because the lesions are only scars.
Ascities 320 Module 6-1-16	Condemned materials are suitable for animal food.
Atrophic Rhinitis 455	Condemned **heads are not suitable for animal food** primarily because of the association between

Module 6-1-192	cats and atrophic rhinitis.
Atrophy 210 Module 6-1-20	Condemned material is suitable for animal food.
Black Leg 410 Module 6-1-22	Condemned **material is not suitable for animal food**.
Bone Infection (Osteomyelitis) 150 Module 6-1-166	Condemned material is **suitable** for animal food **following removal of affected bones and lymph nodes.**
Bovine Squamous Cell Carcinoma (Cancer Eye) 620 Module 6-1-227	Condemned material, other than heads with abscessed or necrotic lesions, is suitable for animal food.
Bovine Virus Disease (BVD)/ Erosions 094 Module 6-1-79	Condemned material is suitable for animal food.
Bruising 051 Module 6-1-24	Condemned material is suitable for animal food.
Bursitis (Hygroma) 080/081 Module 6-1-26	Condemned material is suitable for animal food.
Calcification 710 Module 6-1-29	Condemned material is suitable for animal food.
Calculi (stones) 355 Module 6-1-210	Affected tissues are suitable for animal food.
Cannibalism 007 Module 6-1-212	Condemned material is **suitable** for animal food **following removal of abscesses**.
Caseous Lymphadenitis (CLA) 420 Module 6-1-31	Condemned material is **suitable** for animal food **following the removal of the abscessed lymph nodes.**
Cellulitis 800 Module 6-1-35	Condemned material is **not suitable for animal food**.
Cirrhosis 521 Module 6-1-37	Condemned livers are suitable for animal food.
Coccidiosis 720 Module 6-1-39	Condemned material is suitable for animal food.
Congestion 523 Module 6-1-42	Condemned material is suitable for animal food.
Congestive Heart Failure (Ascities - 320 & Edema - 340) Module 6-1-16	Condemned materials are suitable for animal food.

Cryptorchid (Ridgeling) 060 Module 6 – 1 - 195	Condemned material is suitable for animal food.
Cysticercosis 735 Module 6-1-44	**Materials condemned for C. ovis, pisiformis, or tenuicollis are not suitable for animal food.**
Cysts 092 Module 6 -1-54	Condemned materials are suitable for animal food.
Dermatitis 810 Module 6-1-56	In general **most materials**, condemned for various conditions in this section **are not suitable for animal food**.
Diamond Skin Disease (Erysipelas) 435 Module 6-1-61	Condemned material is **not suitable for animal food**.
Edema 340 Module 6-1-16	Condemned materials are suitable for animal food.
Emaciation (Serous Atrophy of Fat) 220 Module 6-1-64	Condemned materials are suitable for animal food.
Emphysema 082 Module 6-1-69	Condemned materials are suitable for animal food.
Endocarditis 572 Module 6-1-72	Condemned material is **not suitable for animal food.**
Enteritis 530 Module 6-1-75	**Condemned material is not suitable for animal food.**
Eosinophilic Myositis 551 Module 6-1-78	**Condemned material is not suitable for animal food.**
Erosions 094 Module 6-1-79	Condemned materials are suitable for animal food.
Erythemia 523 Module 6-1-42	Condemned materials are suitable for animal food.
Erythropoietic Porphyria (Osteohemachromatosis) 130 Module 6-1-162	Condemned materials are suitable for animal food.
Exostosis 120 Module 6-1-82	Condemned materials are suitable for animal food.
Fatty Infiltration 230 Module 6-1-83	Condemned materials are suitable for animal food.

Fibrosis 968 Module 6-1-88	Condemned materials are suitable for animal food.
Fistula 002 Module 6-1-89	Condemned material is **not suitable for animal food.**
Foot Rot (Pododermatitis) 861 Module 6-1-91	Condemned materials are suitable for animal food.
Foreign Body 850 Module 6-1-92	Condemned materials are suitable for animal food.
Frostbite 049 Module 6-1-95	Condemned materials are suitable for animal food.
Gangrene 260 Module 6-1-97	Condemned material is **not suitable for animal food.**
Gastritis 535 Module 6-1-99	Condemned material is **not suitable for animal food.**
Goiter (Hypertrophy) 830 Module 6-1-116	Condemned materials are suitable for animal food.
Granuloma 623 Module 6-1-101	Condemned materials are suitable for animal food.
Granulomatous Lymphadenitis 495 Module 6-1-101	**Affected lymph nodes are not suitable for animal food** but other condemned materials are suitable.
Hardware Disease (Traumatic Reticulitis Complex) 855 Module 6-1-104	Condemned material is **suitable** for animal food **following removal of the lesions** unless there are signs of septicemia. **If there is evidence of septicemia condemned material is not suitable** for animal food.
Hemangioma 625 Module 6-1-230	Condemned materials are suitable for animal food.
Hematoma and Hemorrhage (Major) 053 – Hematoma for clotted blood 576 – Hemorrhage/Major for large accumulations of unclotted blood Module 6-1-107	Condemned materials are suitable for animal food.
Hemorrhage (Petechial and Ecchymotic) 575 – Hemorrhage (Petechial) for pinpoint or petechial, hemorrhages	Condemned materials are suitable for animal food.

574 – Hemorrhage/Splash (Ecchymosis) for larger ecchymotic hemorrhages Module 6 -1 - 109	
Hernias 095 Module 6 -1 -198	Condemned material is **suitable** for animal food, **following removal of any peritonitis lesions**, providing emaciation is the primary reason for condemnation.
Hydatid Cysts 089 Module 6-1-112	Condemned material is **not suitable for animal food.**
Hydronephrosis 563 Module 6 -1- 114	Condemned material is **not suitable for animal food.**
Hyperkeratosis 810 (Dermatitis) Module 6-1-57	In general **most materials**, condemned for various conditions in this section **are not suitable for animal food**.
Hypertrophy 830 Module 6-1-116	Condemned materials are suitable for animal food.
Icterus (Jaundice) 920 Module 6-1-123	**Providing there is no indication of septicemia** condemned material is suitable for animal food.
Injection Site Lesions 065 (Antibiotic Residue) 265 (Injection Site) Module 6-1-120	Condemned materials are suitable for animal food.
Intestinal Emphysema (Pigs) 082 Module 6-1-69	Condemned materials are suitable for animal food.
Jaundice (Icterus) 920 Module 6-1-123	**Providing there is no indication of septicemia** condemned material is suitable for animal food.
Joint III (Navel Infection/Omphalophlebitis) 445 Module 6-1-148	Providing there is no septicemia **condemned carcasses are suitable** for animal food **following removal of the lesions**. **Carcasses affected with septicemia are not suitable for animal food.**
Kidney Cysts 092 Module 6 -1-54	Condemned materials are suitable for animal food.
Liver Flukes 760 Module 6-1-127	Condemned **livers are not suitable for animal food**. Condemned **carcasses are suitable** for animal food **following removal of the liver**.
Lump Jaw (Actinomycosis) 403 Module 6-1-131	Condemned **livers are not suitable for animal food**.

	Condemned **carcasses are suitable** for animal food **following removal of the liver**.
Lymphadenitis 546 Module 6-1-134	Condemned material is **not suitable for animal food.**
Lymphosarcoma 635 Module 6-1-232	Condemned materials are suitable for animal food.
Mange (Dermatitis) 810 Module 6-1-56	In general **most materials**, condemned for various conditions in this section **are not suitable for animal food**.
Mastitis 547 Module 6-1-137	Condemned **udders are not suitable for animal food.** **Condemned carcasses are suitable** for animal food following removal of the udder and **providing there is no evidence of septicemia**.
Melanoma 645 Module 6-1-236	Condemned materials are suitable for animal food.
Melanosis 071 Module 6-1-140	Condemned materials are suitable for animal food.
Mesotheliomas 660 Module 6-1-242	Condemned materials are suitable for animal food.
Metritis 548 Module 6-1-143	Providing there is no evidence of a septicemia condemned material is **suitable for animal food following removal of the uterus.**
Myositis 550 Module 6-1-146	Condemned material is **not suitable for animal food.**
Navel Infection (Omphalophlebitis) 445 Module 6-1-148	Providing there is no septicemia **condemned carcasses are suitable** for animal food **following removal of the lesions**. **Carcasses affected with septicemia are not suitable for animal food.**
Nephritis 560 Module 6-1-151	Condemned kidneys are **not suitable for animal food.** Other condemned material is **suitable** for animal food **following removal of the kidneys**.
Neurofibroma 660 Module 6-1-241	Condemned materials are suitable for animal food.
Neurological Disorders Module 6-1-153	Condemned material is **not suitable for animal food.**
Ochranosis 071	Condemned materials are suitable for animal food.

Module 6-1-142	
Orchitis 570 Module 6-1-161	Carcasses condemned for emaciation are **suitable** for animal food **following removal of the testicles.**
Osteohemachromatosis (Pink Tooth) 130 Module 6-1-162	Condemned materials are suitable for animal food.
Osteomalacia 141 Module 6-1-164	Condemned materials are suitable for animal food.
Osteomyelitis 150 Module 6-1-166	Condemned material is **suitable** for animal food **following removal of affected bones and lymph nodes.**
Parasitic Conditions (Miscellaneous) 790 Module 6-1-167	<u>Livers</u> 3+ lesions (scars from Ascarid migration)-condemned material is suitable for animal food.
Pericarditis 571 Module 6-1-175	Condemned material is **not suitable for animal food.**
Peritonitis 573 Module 6-1-177	In acute peritonitis, condemned material is **suitable** for animal food **following removal of the lesions providing there is no evidence of septicemia.**
	Condemned **material from carcasses with a septicemia is not suitable for animal food.**
	Material condemned for adhesions is suitable for animal food.
Pityriasis Rosea 810 Module 6-1-58	Condemned material is **not suitable for animal food.**
Pleuritis 577 Module 6-1-180	Material from carcasses condemned for acute pleuritis is **suitable** for animal food **following removal of the lesions** providing there is no evidence of septicemia. Condemned **material from a carcass with septicemia is not suitable for animal food**. Material condemned for adhesions is suitable for animal food.
Pneumonia 579 Module 6-1-182	Providing there is no evidence of septicemia condemned material is **suitable** for animal food **following removal of the lungs**.

	Carcasses with a septicemia are not suitable for animal food.
Pork Tapeworm (Cysticercus cellulosae) 735 Module 6-1-44	Federal CFIA guidelines have a zero tolerance for C. cellulosae. **A single cyst is considered sufficient to condemn a carcass.**
Pyelonephritis 566 Module 6-1-189	Condemned material is **suitable** for animal food **following removal of the kidneys** providing there is no evidence of a septicemia. Condemned **material from animals with a septicemia is not suitable** for animal food.
Ridgeling (Retained Testicle/Cryptorchid) 060/064 Module 6-1-195	Condemned materials are suitable for animal food.
Rhinitis 455 Module 6-1-193	Condemned **heads are not suitable for animal food** primarily because of the association between cats and atrophic rhinitis.
Sarcocystosis 770 Module 6-1-201	Condemned material is **not suitable for animal food.**
Sawdust Liver 520 Module 6-1-203	Condemned materials are suitable for animal food.
Septicemia 930 Module 6-1-207	Condemned material is **not suitable for animal food.**
Serous Atrophy of Fat (Emaciation) 220 Module 6-1-64	Condemned materials are suitable for animal food.
Steatitis (Yellow Fat Disease) 102 (Not Otherwise Specified) Module 6-1-209	Condemned materials are suitable for animal food.
Stones (Calculi) 091 Module 6-1-212	Affected tissues are suitable for animal food.
Tail Biting (Cannibalism) 007 Module 6-1-215	Condemned material is **suitable** for animal food **following removal of abscesses.** **Lungs with embolic abscesses are not suitable for animal food.**
Telangiectasis 200	Condemned Material is suitable for animal food.

Module 6-1-217	
Toxemia 960 Module 6-1-219	Condemned Material is suitable for animal food.
Trichinosis 101 Module 6-1-222	Condemned material is **not suitable for animal food.**
Tuberculosis (TB) 490 Module 6-1-226	Condemned material is **not suitable for animal food.**
Tumor-Cancer Eye (Bovine Squamous Cell Carcinoma) 620 Module 6-1-229	Condemned material, **other than heads with abscesses or necrotic lesions**, is suitable for animal food.
Tumor-Hemangioma 625 Module 6-1-231	Condemned materials are suitable for animal food.
Tumor-Lymphosarcoma 635 Module 6-1-235	Condemned materials are suitable for animal food.
Tumor-Melanoma 645 Module 6-1-238	Condemned materials are suitable for animal food.
Tumors-Miscellaneous 660 Module 6-1-243	Condemned materials are suitable for animal food.
Uremia 350 Module 6-1-245	Condemned materials are suitable for animal food.
Waterbelly (Urolithiasis) 355 Module 6-1-248	Condemned materials are suitable for animal food.
White Muscle Disease 211 Module 6-1-249	Condemned materials are suitable for animal food.
Xanthosis 079 Module 6-1-251	Condemned materials are suitable for animal food.

SUBJECT: Meat By-product Harvesting - Poultry	07-B-10
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Sections 15.1 & 66(1)(a) Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Revised on** Sept 1, 2010 **Page 1 of 4**

RATIONALE

All by-products intended for human consumption must be handled in a manner that ensures they are safe.

Note: To ensure that by-products are safe the following fundamental principles must be observed as they are harvested:

a) the identity of the by-products must be maintained until the corresponding carcass is inspected and approved;

b) they will be handled in a hygienic manner and chilled promptly to prevent contamination and/or decomposition;

c) if a particular kind of by-product from several animals is collected in one container and one of the carcasses is condemned, all by-products harvested in that particular container must be condemned;

d) all by-products must be prepared, packaged and stored in an acceptable sanitary manner.

The intent of this document is to **outline** the **procedures for** the **proper harvesting** of **poultry by-products**.

OBJECTIVE/OUTCOME

The facility will have appropriate facilities and equipment for the separation, chilling, packaging, labeling and storage of meat by-products.

Slaughter, dressing, trimming and washing of poultry carcasses and their parts must be done in a manner that:

1. Reduces the risk of contamination of the carcass, all edible organs, or other meat products; and
2. Ensures that a complete post-mortem inspection has been completed on the carcass and all of its parts; and
3. Ensures that proper dispositions, of all edible by-products, have been made, following the post-mortem inspection.

Note: To ensure proper disposition the identity of all poultry by-products must be maintained until the post-mortem inspection has been completed on the carcass from which they originated.

The abattoir operator will ensure that **all by-products** are:

1. Taken **from approved carcasses**.

2. **Free of lesions** (abnormalities).
3. **Properly prepared** to ensure freedom from contamination.

Giblets, parts of dressed carcasses harvested during the dressing procedures including detached necks and salvaged portions must be chilled to 4^0 C or lower within two hours after evisceration.

Turkey breasts, breast fillets, legs, drumsticks and thighs must be chilled to 4^0 C or lower within four hours after evisceration.

Note: Responsible abattoir personnel must monitor the rate of chilling of by-products.

By-products must not be permitted to remain in un-refrigerated areas for any extended periods of time.

The abattoir operator will assume responsibility for monitoring the performance of abattoir personnel to ensure they follow proper procedures.

Note: The MIB Inspector is responsible for monitoring procedures and ensuring that the plant operator takes appropriate steps to correct any deficiencies.

Individual by-products will be handled as described below.

Feathers

Feathers may be harvested for the preparation of feather meal for feeding to ruminants (cattle, sheep, etc.) or for making pillows.

Feather collection must be done in the scalding/plucking area and must be conducted in a hygienic manner.

Note: Feathers must be collected in a timely manner. **Accumulation** in the de-feathering area **is not allowed** because this would lead to potential contamination due to air airborne contaminants.

Feathers must not be stored near edible product or materials.

Feet

Poultry feet (also referred to as paws) are suitable for human consumption providing:

1. They are not removed from the carcass until the post-mortem inspection is completed.

   Note: Feet can only be left on the carcass providing they don't cause a contamination hazard. All feet, carcasses and equipment surfaces must remain visibly clean during operations.

2. They are only harvested from approved carcasses.
3. The epidermis (outer layer of skin) and toenails are removed.
4. Only feet that are free of manure, or other foreign material are allowed to be transferred to an edible product processing area.
5. Sorting, trimming and packaging are performed in a manner that ensures feet ready for packaging are not contaminated by defective feet.

   Note: When operations have been completed all surfaces, on equipment in unrefrigerated rooms, that came into contact with feet must be cleaned

and sanitized before these facilities can be used for the processing of any other product.

6. They are chilled to 4^0 C or less within 4 hours of scalding.

Depending on the facility situation, the MIB Inspector may:

1. Require feet deemed to be unsuitable for human consumption to be removed from the carcass and discarded before the carcass reaches the location where edible feet are being removed.

   Note: "Bad feet" tend to come from individual flock problems, thus the MIB Inspector has the authority to prohibit the salvage of feet from a particular flock.

2. Advise the abattoir operator that salvaged feet may be re-inspected at anytime, and if unsuitable feet are found, all feet in the container will be condemned.

   Note: This option places the onus on the abattoir, rather than on the MIB Inspector, to ensure that only wholesome feet are collected.

Giblets

Note: The term giblet refers to the heart, liver and gizzard as a single item.

Poultry giblets are suitable for human consumption providing they are free of pathological lesions (disease conditions).

It is essential that contamination of the giblets be avoided during preparation and inspection.

Note: The viscera pack must be removed as a single unit and brought to the giblet harvesting station for preparation.

Accumulation of giblets, for later preparation, is **not permitted**.

The pericardium (sac around the heart) must be removed.

The liver needs to be separated from the rest of the viscera and the gall bladder is removed.

Note: Care must be taken to avoid the release of bile onto edible product.

Gizzards must be separated from the viscera then the contents and the lining is removed.

Following preparation giblets must be washed and drained.

Giblets must be chilled to 4 °C or less within 2 hours of harvesting.

Note: The components of the giblet group can be harvested and packaged individually if desired.

Kidneys

Poultry **kidneys cannot be used for human consumption**.

They can be salvaged for pet food.

Necks

Necks can be removed from the carcass and used for human consumption providing they are free of contamination.

They must be chilled to 4 °C or less within 2 hours following their removal from the carcass.

Ova

Note: Ova are partially developed eggs on the ovary of laying hens.

Ova are suitable for human consumption.

To ensure that they only come from approved carcasses ova cannot be salvaged until the post-mortem inspection has been completed.

Collection must be done under sanitary conditions.

All ova must be refrigerated to 4^0 C or less within 2 hours following harvesting.

Note: All ova not intended for the facility's own use must be sent to a registered egg processing station, for pasteurization, before they can be sold.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Meat By-product Harvesting- Poultry"** will be met when:

1. Up-to-date, facility specific, written "**Meat By-Product Harvesting Procedures**" are on file.

   Note: These procedures must:

   a) have detailed instructions relating to the all items being salvaged, including aspects of the collection, packaging, labeling and storage of meat by-products

   b) detail the facilities, areas and equipment that will be used, and the operational controls that will be in place, including chilling and sanitary requirements.

2. Personnel responsible for harvesting the meat by-products are properly trained.
3. On site observation demonstrates that the written **"By-product Harvesting Procedures"** are being implemented and that by-products are harvested in a hygienic manner.

RELATED SECTIONS OF TIPM

02-O-03 Giblet Salvaging Station(s)

03-G-02 Dressing Procedures - Poultry

07-B-06 Dressing Procedures - Poultry

10-B-01 Salvage for Animal Food

10-B-02 Salvage for Miscellaneous Purposes

SUBJECT: Meat By-product Harvesting - Miscellaneous Species	07-B-11
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Section 15.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Revised on** Sept 1, 2010 **Page 1 of 5**

RATIONALE

All by-products intended for human consumption must be handled in a manner that ensures they are safe.

Note: To ensure that by-products are safe the following fundamental principles must be observed as they are harvested:

a) the identity of the by-products must be maintained until the corresponding carcass is inspected, approved, and released (e.g. CWD results for Elk and Deer);

b) they will be handled in a hygienic manner and chilled promptly to prevent contamination and/or decomposition;

c) if a particular kind of by-product from several animals is collected in one container and one of the carcasses is condemned, all by-products harvested in that particular container must be condemned;

d) all by-products must be prepared, packaged and stored in an acceptable sanitary manner.

The intent of this document is to **outline** the **procedures for** the **proper harvesting** of **by-products** from **animals typically done in low numbers**, including, but not restricted to: Emu, Ostrich, Rhea, Buffalo, Deer, Elk, Sheep & Goats etc.

OBJECTIVE/OUTCOME

The facility will have appropriate facilities and equipment for the separation, chilling, packaging, labeling and storage of meat by-products.

Slaughter, dressing, trimming and washing of a carcass and its parts is done in a manner that:

1. Reduces the risk of contamination of the carcass, all edible organs, or other meat products.
2. Ensures that a complete post-mortem inspection has been completed on the carcass and all of its parts
3. Ensures that proper dispositions, of all edible by-products, have been made, following the post-mortem inspection.

Note: To ensure proper disposition the identity of all by-products must be maintained until the post-mortem inspection has been completed on the

carcass from which they originated.

The abattoir operator will ensure that **all by-products** are:

1. Taken **from approved carcasses**.
2. **Free of lesions** (abnormalities).
3. **Properly prepared** to ensure freedom from contamination.

All edible by-products must be chilled to 4^0 C within 4 hours, or frozen, as soon as possible.

Note: Responsible abattoir personnel must monitor the rate of chilling of by-products.

By-products must not be permitted to remain in un-refrigerated areas for any extended periods of time.

The abattoir operator will assume responsibility for monitoring the performance of abattoir personnel to ensure they follow proper procedures.

Note: The MIB Inspector is responsible for monitoring procedures and ensuring that the plant operator takes appropriate steps to correct any deficiencies.

Individual by-products will be handled as described below.

Note: The following list is abbreviated to include only those by-products that are currently being harvested. If there is a desire to salvage any other by-products from miscellaneous species these items should be handled in the same manner as described in TIPM Documents 07-B-08, 07-B-09 and 07-B-10 for beef, pork and poultry respectively.

Feet/Hooves

Feet /hooves may be harvested for human food provided they are:

1. Taken from approved carcasses
2. Free of any visible lesions
3. Cleaned with hot water (scalded) to ensure the complete removal of any manure, hair, or other foreign material from the hoof and adjacent hide.

Note: The proximal (upper) open end of the foot will become contaminated during the scalding process. This surface contamination must be removed by trimming following cleaning.

Ethnic groups that use beef feet, as edible material, are only interested in the tissues located within the hoof; therefore the complete removal of the hoof sole, wall, and adjacent skin is an alternative method of processing.

4. Placed in a cooler as soon as processing has been completed.

Note: If there is any concern about possible cross contamination of other edible product, in the cooler, the MIB Inspector may require that the hooves be placed in a suitable container before being placed in the cooler.

Heads

Lamb and kid heads are suitable for human consumption providing they are free of any pathological lesions, hair, or foreign matter. Age verification by denition is required to

ensure animals are less than one (1) year old to allow for salvage for human consumption.

Note: Sheep and goat heads of animals over one (1) year of age are **not** suitable for human consumption and must be disposed of as SRM.

Head Meat

The hair, hide and horns on buffalo, elk or deer heads are potential sources of serious contamination from micro-organisms (bacteria, molds, fungi, etc.) thus these structures must be removed if any head meat is going to be salvaged.

Hearts

Hearts may be prepared, as an edible by-product, providing they are properly trimmed and opened to permit the complete removal of all blood clots.

Hearts must be trimmed to remove the major blood vessels (aorta, pulmonary artery, vena cava, etc.) within 2 cm of their origin.

Note: The atria do not need to be trimmed, except to accommodate removal of the major blood vessels.

After washing, hearts must be drained and refrigerated.

Intestines

Intestines are usually harvested for ethnic trade.

Note: To be harvested, these by-products must be free of pathological lesions.

Rinsed product must be examined by responsible abattoir personnel, prior to further handling.

Note: The MIB Inspector is responsible for monitoring the effectiveness of the procedures that are conducted.

Kidneys

Kidneys from any red meat animal are suitable for human consumption providing they are free of any pathological lesions.

Kidneys must be deeply incised and soaked in water and washed, before they are incorporated into any meat products.

Note: Like poultry, the kidneys of ratites are not considered to be suitable for human consumption.

Livers

The liver of any species is suitable for human consumption providing it is prepared in the following manner:

1. The gall bladder has to be removed.

   Note: Care must to be taken to avoid any spillage of bile.

2. Small lesions, such as dry adhesions, parasite scars, etc. can be removed by trimming.

   Note: Livers that are more severely affected with these, or other similar conditions, may be salvaged for animal food.

Approved livers must be chilled by immersion in cold running water or by air chilling in a cooler.

Note: Livers are hung on racks, or placed in trays, when placed in a cooler for air chilling.

Livers may also be packed and frozen.

Stomach

Stomachs are usually harvested for ethnic trade.

Stomachs must be handled in the following manner:

1. The stomach contents are removed
2. The raw product is washed, inside and out

   Note: Any contamination of the attached fat, that is not removed by washing, must be trimmed.

3. The rinsed product must be examined by responsible abattoir personnel, prior to further handling (e.g. chilling and packing in the case of raw products)

   Note: The MIB Inspector is responsible for monitoring the effectiveness of the procedures being followed.

The preparation of this material should, as far as abattoir facilities permit, be carried out in a location separate from the slaughter floor.

The use of automated equipment requires prior approval of the MIB Area Manager (AM)

Note: This approval is required to ensure that approved materials and procedures are used.

Tongues

The tongue must be trimmed to remove any portions of the larynx, epiglottis, or tonsils.

Note: The severed base of the tongue may also have to be trimmed if there is any contamination.

Tongues must be washed prior to chilling.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for **"Meat By-product Harvesting- Miscellaneous Species"** will be met when:

1. Up-to-date, facility specific, written "**Meat By-Product Harvesting Procedures**" are on file.

   Note: These procedures must:

   a) have detailed instructions relating to the all items being salvaged, including aspects of the collection, packaging, labeling and storage of meat by-products

   b) detail the facilities, areas and equipment that will be used, and the operational controls that will be in place, including chilling and sanitary requirements.

2. Personnel responsible for harvesting the meat by-products are properly trained.
3. On site observation demonstrates that the written "**By-product Harvesting Procedures"** are being implemented and that by-products are harvested in a hygienic manner.

RELATED SECTIONS OF TIPM

03-G-01 Dressing Procedures - Red Meat

10-B-01 Salvage for Animal Food

10-B-02 Salvage for Miscellaneous Purposes

ATTACHMENT-TIPM DOCUMENT 07-B-11

APPENDIX 1 – DISPOSITION FOR ANIMAL FOOD

CONDITION & MODULE OF MIB TRAINING MANUAL	COMMENTS/UTILIZATION
Abscesses-001 Module 6-1-1	**CARCASS** Numerous abscess or systemic effect, carcass is suitable for animal food after removal of lesions or affected parts.
Actinobacillosis (Wooden Tongue)-401 Module 6-1-6	Individual **condemned heads** and heads from carcasses condemned for emaciation, or other systemic changes, **are not suitable for animal food**.
Actinomycosis (Lump Jaw)-403 Module 6-1-131	Condemned **livers are not suitable for animal food**. Condemned **carcasses are suitable** for animal food **following removal of the liver**.
Adhesions – 511 Peritonitis-571 Module 6-1-177	In acute peritonitis, condemned material is **suitable** for animal food **following removal of the lesions providing there is no evidence of septicemia.** Condemned **material from carcasses with a septicemia is not suitable for animal food.** Material condemned for adhesions is suitable for animal food.
Adhesions – 511 Pleuritis-577 Module 6-1-180	Material from carcasses condemned for acute pleuritis is **suitable** for animal food **following removal of the lesions** providing there is no evidence of septicemia. Condemned **material from a carcass with septicemia is not suitable for animal food**. Material condemned for adhesions is suitable for animal food.
Anemia-910 Module 6-1-10	Condemned materials are suitable for animal food provided the anemia is not accompanied by septicemia.
Arthritis-512 Module 6-1-12	Condemned materials are **suitable for animal food following removal of affected joints** providing there are no indications of a concurrent septicemia.
Ascaris suum (Milk Spots - Pig Round Worm)-790 Module 6-1-167	Condemned livers are suitable for animal food because the lesions are only scars.
Ascities- 320 Module 6-1-16	Condemned materials are suitable for animal food.
Atrophic Rhinitis- 455 Module 6-1-192	Condemned **heads are not suitable for animal food** primarily because of the association between cats and atrophic rhinitis.

Atrophy- 210 Module 6-1-20	Condemned material is suitable for animal food.
Black Leg- 410 Module 6-1-22	Condemned **material is not suitable for animal food**.
Bone Infection (Osteomyelitis)- 150 Module 6-1-166	Condemned material is **suitable** for animal food **following removal of affected bones and lymph nodes.**
Bovine Squamous Cell Carcinoma (Cancer Eye) 620 Module 6-1-227	Condemned material, other than heads with abscessed or necrotic lesions, is suitable for animal food.
Bovine Virus Disease (BVD)/ Erosions-094 Module 6-1-79	Condemned material is suitable for animal food.
Bruising-051 Module 6-1-24	Condemned material is suitable for animal food.
Bursitis (Hygroma)-080/081 Module 6-1-26	Condemned material is suitable for animal food.
Calcification-710 Module 6-1-29	Condemned material is suitable for animal food.
Calculi (stones)-355 Module 6-1-210	Affected tissues are suitable for animal food.
Cannibalism-007 Module 6-1-212	Condemned material is **suitable** for animal food **following removal of abscesses**.
Caseous Lymphadenitis (CLA)-420 Module 6-1-31	Condemned material is **suitable** for animal food **following the removal of the abscessed lymph nodes.**
Cellulitis-800 Module 6-1-35	Condemned material is **not suitable for animal food**.
Cirrhosis-521 Module 6-1-37	Condemned livers are suitable for animal food.
Coccidiosis-720 Module 6-1-39	Condemned material is suitable for animal food.
Congestion-523 Module 6-1-42	Condemned material is suitable for animal food.
Congestive Heart Failure (Ascities - 320 & Edema - 340) Module 6-1-16	Condemned materials are suitable for animal food.
Cryptorchid (Ridgeling)-060 Module 6 – 1 - 195	Condemned material is suitable for animal food.
Cysticercosis-735 Module 6-1-44	**Materials condemned for C. ovis, pisiformis, or tenuicollis are not suitable for animal food.**
Cysts-092 Module 6 -1-54	Condemned materials are suitable for animal food.
Dermatitis-810 Module 6-1-56	In general **most materials**, condemned for various conditions in this section **are not suitable for animal food**.
Diamond Skin Disease (Erysipelas)-435 Module 6-1-61	Condemned material is **not suitable for animal food**.

Edema-340 Module 6-1-16	Condemned materials are suitable for animal food.
Emaciation (Serous Atrophy of Fat)-220 Module 6-1-64	Condemned materials are suitable for animal food.
Emphysema-082 Module 6-1-69	Condemned materials are suitable for animal food.
Endocarditis-572 Module 6-1-72	Condemned material is **not suitable for animal food.**
Enteritis-530 Module 6-1-75	**Condemned material is not suitable for animal food.**
Eosinophilic Myositis-551 Module 6-1-78	**Condemned material is not suitable for animal food.**
Erosions-094 Module 6-1-79	Condemned materials are suitable for animal food.
Erythemia-523 Module 6-1-42	Condemned materials are suitable for animal food.
Erythropoietic Porphyria (Osteohemachromatosis) 130 Module 6-1-162	Condemned materials are suitable for animal food.
Exostosis-120 Module 6-1-82	Condemned materials are suitable for animal food.
Fatty Infiltration-230 Module 6-1-83	Condemned materials are suitable for animal food.
Fibrosis-968 Module 6-1-88	Condemned materials are suitable for animal food.
Fistula-002 Module 6-1-89	Condemned material is **not suitable for animal food.**
Foot Rot (Pododermatitis)-861 Module 6-1-91	Condemned materials are suitable for animal food.
Foreign Body-850 Module 6-1-92	Condemned materials are suitable for animal food.
Frostbite-049 Module 6-1-95	Condemned materials are suitable for animal food.
Gangrene-260 Module 6-1-97	Condemned material is **not suitable for animal food.**
Gastritis-535 Module 6-1-99	Condemned material is **not suitable for animal food.**
Goiter (Hypertrophy)-830 Module 6-1-116	Condemned materials are suitable for animal food.
Granuloma-623 Module 6-1-101	Condemned materials are suitable for animal food.
Granulomatous Lymphadenitis-495 Module 6-1-101	**Affected lymph nodes are not suitable for animal food** but other condemned materials are suitable.
Hardware Disease (Traumatic Reticulitis Complex)-855	Condemned material is **suitable** for animal food **following removal of the lesions** unless there are

Module 6-1-104	signs of septicemia. **If there is evidence of septicemia condemned material is not suitable** for animal food.
Hemangioma-625 Module 6-1-230	Condemned materials are suitable for animal food.
Hematoma and Hemorrhage (Major) 053 – Hematoma for clotted blood 576 – Hemorrhage/Major for large accumulations of unclotted blood Module 6-1-107	Condemned materials are suitable for animal food.
Hemorrhage (Petechial and Ecchymotic) 575 – Hemorrhage (Petechial) for pinpoint or petechial, hemorrhages 574 – Hemorrhage/Splash (Ecchymosis) for larger ecchymotic hemorrhages Module 6 -1 - 109	Condemned materials are suitable for animal food.
Hernias-095 Module 6 -1 -198	Condemned material is **suitable** for animal food, **following removal of any peritonitis lesions**, providing emaciation is the primary reason for condemnation.
Hydatid Cysts-089 Module 6-1-112	Condemned material is **not suitable for animal food.**
Hydronephrosis- 563 Module 6 -1- 114	Condemned material is **not suitable for animal food.**
Hyperkeratosis- 810 (Dermatitis) Module 6-1-57	In general **most materials**, condemned for various conditions in this section **are not suitable for animal food**.
Hypertrophy- 830 Module 6-1-116	Condemned materials are suitable for animal food.
Icterus (Jaundice)-920 Module 6-1-123	**Providing there is no indication of septicemia** condemned material is suitable for animal food.
Injection Site Lesions 065 (Antibiotic Residue) 265 (Injection Site) Module 6-1-120	Condemned materials are suitable for animal food.
Intestinal Emphysema (Pigs)-082 Module 6-1-69	Condemned materials are suitable for animal food.
Jaundice (Icterus)-920 Module 6-1-123	**Providing there is no indication of septicemia** condemned material is suitable for animal food.
Joint III (Navel Infection/Omphalophlebitis) 445 Module 6-1-148	Providing there is no septicemia **condemned carcasses are suitable** for animal food **following removal of the lesions**. **Carcasses affected with septicemia are not suitable for animal food.**
Kidney Cysts-092 Module 6 -1-54	Condemned materials are suitable for animal food.
Liver Flukes-760 Module 6-1-127	Condemned **livers are not suitable for animal food**.

	Condemned **carcasses are suitable** for animal food **following removal of the liver**.
Lump Jaw (Actinomycosis)-403 Module 6-1-131	Condemned **livers are not suitable for animal food**. Condemned **carcasses are suitable** for animal food **following removal of the liver**.
Lymphadenitis-546 Module 6-1-134	Condemned material is **not suitable for animal food.**
Lymphosarcoma-635 Module 6-1-232	Condemned materials are suitable for animal food.
Mange (Dermatitis)-810 Module 6-1-56	In general **most materials**, condemned for various conditions in this section **are not suitable for animal food**.
Mastitis-547 Module 6-1-137	Condemned **udders are not suitable for animal food.** **Condemned carcasses are suitable** for animal food following removal of the udder and **providing there is no evidence of septicemia**.
Melanoma-645 Module 6-1-236	Condemned materials are suitable for animal food.
Melanosis-071 Module 6-1-140	Condemned materials are suitable for animal food.
Mesotheliomas-660 Module 6-1-242	Condemned materials are suitable for animal food.
Metritis-548 Module 6-1-143	Providing there is no evidence of a septicemia condemned material is **suitable for animal food following removal of the uterus.**
Myositis-550 Module 6-1-146	Condemned material is **not suitable for animal food.**
Navel Infection (Omphalophlebitis)-445 Module 6-1-148	Providing there is no septicemia **condemned carcasses are suitable** for animal food **following removal of the lesions**. **Carcasses affected with septicemia are not suitable for animal food.**
Nephritis-560 Module 6-1-151	Condemned kidneys are **not suitable for animal food.** Other condemned material is **suitable** for animal food **following removal of the kidneys**.
Neurofibroma-660 Module 6-1-241	Condemned materials are suitable for animal food.
Neurological Disorders Module 6-1-153	Condemned material is **not suitable for animal food.**
Ochranosis- 071 Module 6-1-142	Condemned materials are suitable for animal food.
Orchitis-570 Module 6-1-161	Carcasses condemned for emaciation are **suitable** for animal food **following removal of the testicles.**
Osteohemachromatosis (Pink Tooth)-130 Module 6-1-162	Condemned materials are suitable for animal food.
Osteomalacia-141	Condemned materials are suitable for animal food.

Module 6-1-164	
Osteomyelitis-150 Module 6-1-166	Condemned material is **suitable** for animal food **following removal of affected bones and lymph nodes.**
Pericarditis-571 Module 6-1-175	Condemned material is **not suitable for animal food.**
Peritonitis-573 Module 6-1-177	In acute peritonitis, condemned material is **suitable** for animal food **following removal of the lesions providing there is no evidence of septicemia.** Condemned **material from carcasses with a septicemia is not suitable for animal food.** Material condemned for adhesions is suitable for animal food.
Pityriasis Rosea-810 Module 6-1-58	Condemned material is **not suitable for animal food.**
Pleuritis-577 Module 6-1-180	Material from carcasses condemned for acute pleuritis is **suitable** for animal food **following removal of the lesions** providing there is no evidence of septicemia. Condemned **material from a carcass with septicemia is not suitable for animal food**. Material condemned for adhesions is suitable for animal food.
Pneumonia-579 Module 6-1-182	Providing there is no evidence of septicemia condemned material is **suitable** for animal food **following removal of the lungs**. **Carcasses with a septicemia are not suitable for animal food.**
Pork Tapeworm (Cysticercus cellulosae)-735 Module 6-1-44	Federal CFIA guidelines have a zero tolerance for C. cellulosae. **A single cyst is considered sufficient to condemn a carcass.**
Pyelonephritis-566 Module 6-1-189	Condemned material is **suitable** for animal food **following removal of the kidneys** providing there is no evidence of a septicemia. Condemned **material from animals with a septicemia is not suitable** for animal food.
Ridgeling (Retained Testicle/Cryptorchid) 060/064 Module 6-1-195	Condemned materials are suitable for animal food.
Rhinitis-455 Module 6-1-193	Condemned **heads are not suitable for animal food** primarily because of the association between cats and atrophic rhinitis.

Sarcocystosis-770 Module 6-1-201	Condemned material is **not suitable for animal food.**
Sawdust Liver-520 Module 6-1-203	Condemned materials are suitable for animal food.
Septicemia-930 Module 6-1-207	Condemned material is **not suitable for animal food.**
Serous Atrophy of Fat (Emaciation)-220 Module 6-1-64	Condemned materials are suitable for animal food.
Steatitis (Yellow Fat Disease) 102 (Not Otherwise Specified) Module 6-1-209	Condemned materials are suitable for animal food.
Stones (Calculi)-091 Module 6-1-212	Affected tissues are suitable for animal food.
Tail Biting (Cannibalism)-007 Module 6-1-215	Condemned material is **suitable** for animal food **following removal of abscesses.** Lungs with embolic abscesses are **not suitable** for animal food.
Telangiectasis-200 Module 6-1-217	Condemned Material is suitable for animal food.
Toxemia-960 Module 6-1-219	Condemned Material is suitable for animal food.
Trichinosis-101 Module 6-1-222	Condemned material is **not suitable for animal food.**
Tuberculosis (TB)-490 Module 6-1-226	Condemned material is **not suitable for animal food.**
Tumor-Cancer Eye (Bovine Squamous Cell Carcinoma) 620 Module 6-1-229	Condemned material, **other than heads with abscesses or necrotic lesions**, is suitable for animal food.
Tumor-Hemangioma-625 Module 6-1-231	Condemned materials are suitable for animal food.
Tumor-Lymphosarcoma-635 Module 6-1-235	Condemned materials are suitable for animal food.
Tumor-Melanoma-645 Module 6-1-238	Condemned materials are suitable for animal food.
Tumors-Miscellaneous-660 Module 6-1-243	Condemned materials are suitable for animal food.
Uremia-350 Module 6-1-245	Condemned materials are suitable for animal food.
Waterbelly (Urolithiasis)-355 Module 6-1-248	Condemned materials are suitable for animal food.
White Muscle Disease-211 Module 6-1-249	Condemned materials are suitable for animal food.
Xanthosis-079 Module 6-1-251	Condemned materials are suitable for animal food.

SUBJECT: Intervention Strategies - Red Meat Animals	07-B-12
REGULATORY REFERENCES: AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Section 15.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Revision Date** Sept 1, 2010 **Page 1 of 5**

RATIONALE

A primary goal of the slaughter process is to minimize contamination of the carcass with micro-organisms (bacteria, molds, fungi, etc.) and to effectively remove contamination that may have occurred.

Note: Most contaminants, micro-organisms, chemical, or physical, have the potential to cause harm to consumers of meat, or meat products.

Sanitary dressing procedures are the primary means of reducing contamination of poultry carcasses, by micro-organisms, but in reality, no matter how careful the dressing procedure is conducted, it is almost impossible to dress a red meat carcass without some bacterial contamination.

Note: Many bacteria found in the manure (e.g. Salmonella, Campylobacter, etc.) and on the skin of red meat animals are capable of causing serious disease in humans.

The unavoidability of bacterial contamination is the reason that “Intervention Protocols” are necessary.

As a means of improving meat safety the Meat Inspection Branch (MIB) of the Regulatory Services Division (RSD) of Alberta Agriculture and Rural Development (ARD) strongly recommends the routine use of “Intervention Protocols” to effectively remove, or inactivate, bacterial contamination of the carcass.

This document outlines the types of **“Intervention Strategies**” that are currently approved for use on red meat carcasses.

OBJECTIVE/OUTCOME

To minimize bacterial and/or chemical contamination, **it is strongly recommended** that “Licensed Meat Facilities” (abattoirs) adopt **“Intervention Strategies”** that go beyond the routine, traditional practice of only trimming and washing carcasses in the final steps of dressing.

“Approved Intervention Strategies” include those identified in this document along with others that may be approved, in the future, by the Head of the MIB.

The MIB recommends that abattoirs test some of their red meat carcasses to verify that *E. coli* 0157:H7 has been eliminated.

Note: This is only a **recommendation**. It is **not a** legislated **requirement**.

Verification of the elimination of E. coli O157:H7 requires bi-monthly, or quarterly, testing of at least one carcass for E. coli O157:H7.

A standard 3 site carcass swabbing technique is used. The carcass must be

held until test results are known.

If verification tests are positive, for *E. coli* 0157:H7, the operator must re-apply the intervention to the positive carcass(es), retest and then evaluate the slaughter process for potential problem areas, and consider increasing the frequency of carcass testing.

The following "Intervention Strategies" are approved for use by the MIB.

Lactic Acid Wash

Note: Lactic acid is the most commonly used antibacterial chemical for acid washing of carcasses.

The wash is applied following trimming of any visible contaminants.

Note: Normally acid washes are applied following the final wash with water but they can be applied before.

"Common Industry Practice" calls for the use of a 2.0 – 4.0% solution.

Note: As long as the operator does not exceed a concentration of 5% the carcass does not have to be rinsed with water after application of the lactic acid.

It is recommended that carcasses be sprayed, in a gentle sweeping motion, from top to bottom, with the nozzle no more than 12 inches from the carcass. Lactic acid may also be applied to beef subprimals, trimmings, and offals.

A side of beef should be sprayed for at least one minute, smaller carcasses (e.g. pork, lamb, etc) for 30 seconds.

The rinse should be applied with a moderately broad nozzle setting and a high level of pump pressure (between 30-40 psi).

Note: It is acceptable to use a garden type sprayer but it is recommended that one of higher quality be used.

The concentration and temperature, of the solution, must be checked and recorded at least once on each shift.

Note: The efficiency of the lactic acid depends on the temperature it is used at. It works best at temperatures between 50 and 55^0 C.

Mixing instructions, for lactic acid, are included as an attachment to this document.

In keeping with Health Canada's requirement, a 72 hours minimal interval is required between application of lactic acid to beef and pork carcasses and consumption of the product.

Acetic Acid Wash

Acetic acid washes are applied following trimming of any visible contaminants.

"Common Industry Practice" calls for the use of a 2.0% solution.

Note: Concentrations of 5% or less do not require rinsing of the carcasses following application.

The carcass should be sprayed twice to create a drip.

The concentration of the solution must be checked at least once each shift.

Peroxyacetic Acid and Hydrogen Peroxide Washes

These chemical washes are applied following trimming of any visible contaminants, and may be applied to carcasses, parts, trim and organs.

Note: Concentrations of 220 ppm or less of peroxyacetic acid, or 110 ppm or less of hydrogen peroxide do not require rinsing of the carcasses following application.

Chlorine or Chlorine Dioxide Washes (including Sodium/Calcium Hypochlorite)

Chorine solutions can be used instead of an organic acid. Approved chlorine compounds include sodium/calcium hypochlorite and electrolytically generated hypochlorous acid.

Application of chlorine is done using the same method as for acid washes.

The **MAXIMUM** allowable concentration of **TOTAL AVAILABLE** chlorine, for a red meat carcass, is **20 parts per million** (ppm), followed by a rinse with potable water.

Acidified chlorine

Acidified chlorine is applied the same as other washes but in this case the maximum allowable limit of total available chlorine is 10 ppm, followed by a rinse with potable water.

Dry Chilling and Ageing

Note: Generally dry chilling and ageing, which is routinely used to tenderize beef carcasses, also has the desirable effect of reducing the number of bacteria on the surface of the carcass. Generally this process is only applicable to beef carcasses.

The following conditions are required to ensure that dry chilling and ageing have the desired effect of reducing bacterial contamination:

1. A cooler temperature of less than 4^0 C (39.2^0 F).

   Note: It is “Common Industry Practice” to set the coolers at temperatures between 1^0 C (34^0 F) to 3.3^0 C (38^0 F) with a humidity below 90%.

2. Monitoring is conducted, to ensure that the temperature has remained below 4^0 C.
3. Documentation to show that carcasses have been dry chilled for at least 6 days.

   Note: Laboratory tests have confirmed that generic *E. coli* and *E. coli* 0157:H7 are more susceptible to these conditions than most other contaminating bacteria.

MISCELLANEOUS CONSIDERATIONS ON THE USE OF ACID WASHES

General Comments on Acid Washes

It has been reported that acetic acid solutions may be hard on floor surfaces.

Acetic acid also tends to be more irritating for workers than lactic acid.

It has been observed that carcasses sprayed with organic acids develop changes in the appearance of the surface fat after ageing.

Note: These changes include a yellowish tinge to carcass fat and a brownish tinge to blood. These color changes may be lessened following the chilling process.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for "**Intervention Strategies- Red Meat Animals**" will be met when**:**

1. **Written**, abattoir specific, **"Intervention Procedures"** are on file.

   Note: Written protocols must include monitoring procedures and records, including tests of the concentrations (and temperature, if applicable) of any solutions used in the protocol at least once every shift.

   These procedures must include:

   a) the method of intervention;
   b) the person responsible;
   c) cleanliness requirements for the equipment;
   d) descriptions for the proper utilization of the equipment;
   e) the site and rate of application including solution flow rate and pressure;
   f) safe and sanitary storage requirements for chemical agents;
   g) chemical concentrations, temperatures and other specifications;
   h) a description of actions taken if the method of intervention does not follow the written program

2. An up-to-date **list of all non-food chemicals** in use, or stored, on the premises.

   Note: There should also be documentation indicating that these chemicals have been approved for use in abattoirs.

3. All microbial control treatment solutions and/or treated water are tested and the test results are captured by a continuous recorder, or if recorded manually, a minimum of once every 4 hours.

   Note: Records must show ongoing compliance with:

   a) Maximum allowable concentrations (and if applicable, temperature and/or time) as indicated by Health Canada for use on raw poultry; and
   b) minimum concentration (and if applicable, temperature and/or time) needed to ensure effective control of microbial organisms.

4. **"Intervention Strategies"** do not result in the contamination of any non-compatible products, ingredients or packaging material.

5. All facility personnel involved in the performance of **"Intervention Strategies"** are in compliance with Occupational Health and Safety Requirements.

   Note: A current "Material Safety Data Sheet" (MSDS) must be on file, at the facility, for each microbial control agent in use.

6. "**Intervention Training Records"** are on file at the premises**,** for personnel responsible for conducting the intervention.

   Note: Training must include MSDS training for chemicals being used.

7. On site observations by MIB Inspectors demonstrate that the abattoir is performing

the **"Intervention Strategies"** in accordance with the written protocol.

RELATED SECTIONS OF TIPM

03-C-02 Approved Chemicals & Chemical Listing
03-G-01 Dressing Procedures - Red Meat
07-B-01 Dressing Procedures - Cattle & Calves
07-B-02 Dressing Procedures - Hogs
07-B-03 Dressing Procedures - Sheep, Goats & Deer
07-B-04 Dressing Procedures - Elk & Bison
07-B-05 Dressing Procedures - Rabbits (Domestic)

Attachment - TIPM Document 07-B-12

Lactic Acid Instructions

Materials Required:

Lactic Acid 88% (20L Pail)

Graduated Cylinder or another measuring device

Pail Pump

Sprayer

MSDS sheets, Acid Usage Sheets

Lactic Acid Test Kit

Mixing and Storage Instructions:

1. Acid should be diluted to approximately 2%-2.5%. If kept at 5% or below, the carcasses do not have to be rinsed following treatment.

   To get this percentage range:

   Fill the sprayer to the 8 litre mark on the outside. (You can weigh this- it will weigh 8 kg + weight of container or you can use a dipstick to measure level.

   Measure 190 ml of lactic acid

   This should give approximately 2% strength. Use the test kit to verify concentration and adjust as necessary.

2. Research studies have shown that the temperature range of the water affects the efficacy of the acid. Water temperature should be between 50-65 °C. Keep the sprayer submersed in a pail of hot water to keep the water warm throughout the slaughter. Refresh the hot water surrounding the sprayer as it starts to cool off (especially if you are keeping the pail in the cooler in between animals)

3. A treatment record is required. This record must contain the date, the water temperature, and the tested concentration of the acid (using the test kit) for each batch of lactic acid used.

Lactic Acid Instructions (cont.)

Method of Application

1. Rinse each carcass side with warm potable water prior to acid treatments. Each side of beef should be washed for at least 2 minutes. Pork should be washed for 1 minute. Wash the carcass from top to bottom. Spray only 1 carcass at a time, and hold nozzle no more than one foot from the carcass surface.

2. Allow carcass halves to drip for 5 minutes.

   Note: Allowing the carcass to drip is important, because if there is not enough drip time there will be too much water film and the acid cannot get through into the carcass

3. Apply acid treatment to carcass halves.

4. A side of beef must be rinsed for at least 1 minute, pork for 30 seconds. Spray both the inside and outside, moving from top to bottom in a sweeping motion.

5. Transfer all carcass halves to drip cooler. There is no need to rinse again.

   Note: Pails of intervention acids must be stored in a secure location, along with all other chemicals. Amounts required can be transferred to the sprayer from this location.

6. There must be a 72 hour interval between spraying the carcasses and consumption of product.

SUBJECT: Intervention Strategies - Poultry	07-B-13
REGULATORY REFERENCES AR 42/2003 *Meat Inspection Regulation* (Consolidated to 112/2009) Section 15.1 Meat Facility Standards (MFS) Section 3.3	**Initial Release** Sept 1, 2009 **Revision Date** Sept 1, 2010 **Page 1 of 4**

RATIONALE

A primary goal of the slaughter process is to minimize contamination of the carcass with micro-organisms (bacteria, molds, fungi, etc.) and to effectively remove contamination that may have occurred.

Note: Most contaminants, micro-organisms (bacteria, fungi, molds, etc.), chemical, or physical, have the potential to cause harm to consumers of meat, or meat products.

Sanitary dressing procedures are the primary means of reducing contamination of poultry carcasses, by micro-organisms, but in reality, no matter how careful the dressing procedure is conducted, it is almost impossible to dress a poultry carcass without some bacterial contamination.

Note: Many bacteria found in the manure (e.g. Salmonella, Campylobacter, etc.) and on the skin of poultry are capable of causing serious disease in humans.

The unavoidability of bacterial contamination is the reason that “Intervention Protocols” are necessary.

As a means of improving meat safety the Meat Inspection Branch (MIB) of the Regulatory Services Division (RSD) of Alberta Agriculture and Rural Development (ARD) strongly recommends the routine use of “Intervention Protocols” to effectively remove, or inactivate, bacterial contamination of the carcass.

This document **outlines** the types of **“Intervention Strategies”** that are currently approved for use **in poultry**.

OBJECTIVE/OUTCOME

To minimize bacterial and/or chemical contamination, **it is strongly recommended** that “Licensed Meat Facilities” (abattoirs) adopt **“Intervention Strategies”** that go beyond the routine, traditional practice of only washing poultry carcasses in the final steps of dressing.

“Approved Intervention Strategies” include those identified in this document along with others that may be approved, in the future, by the Head of the MIB.

The following “Intervention Strategies” are approved for use by the MIB on poultry:

Acidified Chlorine

Poultry carcasses may be sprayed with, or dipped into, solutions of acidified chlorine (HOCL).

Note: Acidified chlorine is a mixture of sodium hypochlorite and phosphoric acid.

A maximum of 10 parts per million (ppm) of total available (acidified) chlorine can be put in dips, or sprays, for poultry carcasses, or parts of carcasses, providing treatment is followed by a rinse with potable water.

Acidified Sodium Chlorite Solutions

Poultry carcasses may be sprayed with, or dipped into, acidified solutions of sodium chlorite.

It is "Common Industry Practice" to use a solution that contains between 500 and 1,200 ppm of sodium chlorite in combination with a food grade acid at levels sufficient to achieve a solution pH of 2.5 to 2.9.

Note: 500 to 1,200 ppm of sodium chlorite is equivalent to a concentration of 20 to 226 ppm of hydrochlorous acid.

Chlorine Dioxide

Chlorine Dioxide (ClO_2) can be used providing:

1. The air surrounding and/or within the treatment equipment is exhausted to comply with occupational health and safety requirements.
2. An initial validation test of the ClO_2 generation system verifies that the generator effluent contains at least 90% (by weight) of ClO_2 with respect to all chlorine containing compounds, as determined by an internationally accepted method e.g. as published in "Standard Methods for the Examination of Water and Wastewater".
3. Water in immersion chillers doesn't exceed 50 ppm of total available chlorine dioxide such that a maximum of 3 ppm (mg/l) of residual chlorine dioxide is detected in the chiller overflow water.

Chlorine Washes

Chlorine can be applied to poultry carcasses, or to portions of carcasses and equipment, in the chill tank, by sprays on the salvage line and through the use of venting and cropping sprays.

Chlorine can be applied in the form of sodium or calcium hypochlorite, or electrolytically generated hydrochlorous acid.

Note: For the chill tank the concentration of **total available chlorine** must be equal to, or greater than, 20 ppm but must not exceed 50 ppm. There must always be a trace of residual chorine.

A maximum of 5 ppm total available residual chlorine is allowed in the chiller overflow water.

Similarly, in salvage lines, venting equipment and cropper sprays the concentration of total available chlorine must be equal to, or greater than, 20 ppm but must not exceed 50 ppm.

Carcass contact surfaces of automatic poultry evisceration equipment may be sprayed with water containing 20-200 ppm of total available chlorine provided the surfaces are well drained prior to contact with poultry carcasses or parts.

Lactic Acid Wash

Lactic acid washes are applied following trimming of any visible contaminants.

Note: Normally acid washes are applied following the final wash with water but they can be applied before.

A 4.5% solution may be used, with or without buffered sodium lactate, providing the acid treatment is followed immediately by rinsing with potable water.

The concentration and temperature, of the solution, and temperature must be checked and recorded at least once on each shift.

Peroxyacetic Acid and Hydrogen Peroxide

These chemicals may be added to water or ice used for washing, rinsing, cooling, or processing whole poultry, poultry parts, or organs, or in chill tanks.

Washes and sprays must be applied at a maximum concentration of 220 ppm peroxyacetic acid or 85 ppm hydrogen peroxide, while chillers must not exceed 2000 ppm peroxyacetic acid or 165 ppm hydrogen peroxide.

Ozone

Ozone may be used for treating re-circulated poultry chiller water but must not be allowed to contact poultry carcasses, or parts thereof.

Note: Residual ozone must be removed from the treated chiller water by filtration.

Ozone generators can be used, but they must not generate ozone into the air, incidental to their normal operation, at a level in excess of 0.05 ppm.

Tri-sodium Phosphate

Tri-sodium phosphate (TSP) may be used for pre, or post, chill application on raw poultry carcasses based on the following general conditions of use:

1. TSP must be dissolved in water at a concentration between 8% and 12%.
2. TSP can be applied by means of an on-line spray system for the pre-chill drench application, or as a post chill immersion/drench application;

   Note: TSP must not be applied directly into water immersion chill tanks.
3. The TSP solution must be maintained at a temperature between a minimum of 7.2^0 C (45^0 F) and the temperature of a freshly eviscerated carcass.
4. Re-circulated TSP treatment solution must be put through a filtration system; and carcasses must not be exposed to the TSP solution for more than fifteen (15) seconds in either the pre chill or the post chill treatment methods.

REQUIREMENTS FOR AN AUDITABLE SYSTEM (MFS)

Requirements for "**Intervention Strategies- Poultry**" will be met when**:**

1. **Written**, abattoir specific, **"Intervention Procedures"** are on file.

   Note: Written protocols must include monitoring procedures and records, including tests of the concentrations (and temperature, if applicable) of any solutions used in the protocol at least once every shift.

   These procedures must include:

   a) the method of intervention;

b) the person responsible;

c) cleanliness requirements for the equipment;

d) descriptions for the proper utilization of the equipment;

e) the site and rate of application including solution flow rate and pressure;

f) safe and sanitary storage requirements for chemical agents;

g) chemical concentrations, temperatures and other specifications;

h) a description of actions taken if the method of intervention does not follow the written program

2. An up-to-date **list of all non-food chemicals** in use, or stored, on the premises.

   Note: There should also be documentation indicating that these chemicals have been approved for use in abattoirs.

3. All microbial control treatment solutions and/or treated water are tested and the test results are captured by a continuous recorder, or if recorded manually, a minimum of once every 4 hours.

   Note: Records must show ongoing compliance with:

   a) maximum allowable concentrations (and if applicable, temperature and/or time) as indicated by Health Canada for use on raw poultry; and

   b) minimum concentration (and if applicable, temperature and/or time) needed to ensure effective control of microbial organisms

4. **"Intervention Strategies"** do not result in the contamination of any non-compatible products, ingredients or packaging material.

5. All facility personnel involved in the performance of **"Intervention Strategies"** are in compliance with Occupational Health and Safety Requirements.

   Note: A current "Material Safety Data Sheet" (MSDS) must be on file, at the facility, for each microbial control agent in use.

6. Intervention Strategy **"Training Records"** are on file at the premises**,** for personnel responsible for conducting the intervention.

   Note: Training must include MSDS training for chemicals being used.

7. On site observations, by MIB Inspectors, demonstrate that the abattoir is performing the **"Intervention Strategies"** in accordance with the written protocol.

RELATED SECTIONS OF TIPM

03-C-02 Approved Chemicals & Chemical Listing

03-G-02 Dressing Procedures - Poultry

07-B-06 Dressing Procedures - Poultry